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Another Competitive Enterprise: A Balanced Private-Public Solution to North Carolina's Forensic Science Problem

Kavita Pillai

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ANOTHER “COMPETITIVE ENTERPRISE”: A BALANCED PRIVATE-PUBLIC SOLUTION TO NORTH CAROLINA’S FORENSIC SCIENCE PROBLEM*

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INTRODUCTION

In 1947, Supreme Court Justice Robert H. Jackson described law enforcement activity as “the often competitive enterprise of ferreting out crime.”¹ The Court was weighing the constitutionality of a warrantless search and arrest, holding that warrants should be issued only on the judgment of a “neutral and detached” magistrate.² Justice Jackson’s observation—that overzealous police officers motivated to arrest and convict should not be trusted with the power to decide whether a search or arrest is reasonable and based on probable cause—rings true outside of the Fourth Amendment context as well.

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1. *Johnson v. United States*, 333 U.S. 10, 14 (1947).

2. *Id.*

Such motivations have the potential to cloud the judgment of all those who actively participate in law enforcement. In the realm of forensics, where scientific objectivity and accuracy should be the top priority³ and where jurors tend to instinctively trust forensic expert testimony,⁴ allowing the practices of scientists to take on a distinct law enforcement character risks the integrity of trials based largely or entirely on forensic evidence.⁵ The North Carolina State Bureau of Investigation Crime Lab (“SBI Crime Lab”) is the latest of many such labs to fall into disrepute.⁶ Investigators have uncovered a number of problems, some stemming from overzealous agent-analysts with a crime-fighting bias.⁷ Without reforms in the state, forensic

3. See, e.g., 1 PAUL C. GIANNELLI & EDWARD J. IMWINKELRIED, *SCIENTIFIC EVIDENCE* § 1.01 (4th ed. 2007) (“The reliability of evidence derived from a scientific theory or principle depends upon three factors: (1) the validity of the underlying theory, (2) the validity of the technique applying that theory, and (3) the proper application of the technique on a particular occasion.”).

4. See Roger Koppl, *How to Improve Forensic Science*, 20 EUR. J.L. & ECON. 255, 271 (2005) (“[T]he sloppiest work may easily satisfy a jury, who cannot be expected to know about the difficulties of practical forensic science today.”). Pennsylvania State University Law Professor David H. Kaye, speaking in 2001 on the dangers associated with the use of DNA in the criminal justice system, worried about the effect of poor quality forensic science on indigent defendants, given the general trust juries have in scientific experts:

[I]nternal pressures cause people to do certain things. The training of people in areas in which they were testifying was almost nonexistent, and they were willing, in a courtroom, to extend their expertise beyond its true ability. It's very effective when someone walks into a courtroom and says, “I am a scientist.”

Symposium, *The Human Genome Project, DNA Science and The Law: The American Legal System's Response to Breakthroughs in Genetic Science, Panel Two: Criminal Law and DNA Science: Balancing Societal Interests and Civil Liberties*, 51 AM. U. L. REV. 401, 418 (2002) [hereinafter Symposium].

5. See generally Brandon L. Garrett & Peter J. Neufeld, *Invalid Forensic Science Testimony and Wrongful Convictions*, 95 VA. L. REV. 1 (2009) (discussing the effect of invalid forensic evidence and testimony on more than 100 cases of wrongful conviction).

6. See *Agents' Secrets*, NEWS & OBSERVER (Raleigh, N.C.), <http://www.newsobserver.com/agents> (last visited Nov. 12, 2011) (compiling all of the newspaper's reporting on the SBI); *infra* notes 13–18 and accompanying text (discussing other forensic lab scandals). The SBI Crime Lab was renamed the North Carolina State Crime Laboratory by recently adopted legislation. Forensic Sciences Act of 2011, § 5, 2011-1 N.C. Adv. Legis. Serv. 38, 40 (LexisNexis) (codified in scattered sections of N.C. GEN. STAT.). Because this Comment discusses issues starting long before this legislation, and because the name change is a cosmetic fix that does not alter the fact that the SBI still runs the lab, this Comment will refer to the lab as it was formerly known.

7. See, e.g., Mandy Locke & Joseph Neff, *Witness for the Prosecution: Lab Loyal to Law Enforcement*, NEWS & OBSERVER (Raleigh, N.C.), Aug. 12, 2010, at 1A, available at <http://www.newsobserver.com/2010/08/12/625107/witness-for-the-prosecution-lab.html> (revealing problems with the SBI Crime Lab, on which the NEWS & OBSERVER published a series of investigative articles).

science testimony that is unreliable puts the innocent at risk of wrongful convictions.⁸ Furthermore, whether scientific evidence is objectively reliable or not, the taint of prior improprieties could lead to acquittals of the guilty.⁹

The extent of the damage from failures in the nation's forensic science system is substantial. One study analyzed the expert testimony given in 137 cases where DNA testing later exonerated the convicted defendant.¹⁰ The researchers in the wrongful convictions study discovered that in sixty percent of the cases "forensic analysts called by the prosecution provided invalid testimony at trial—that is, testimony with conclusions misstating empirical data or wholly unsupported by empirical data."¹¹

Examples from other jurisdictions forecast what is in store for North Carolina if fundamental reforms are not implemented. For a decade in West Virginia, ending in 1989, a serologist,¹² Fred Zain, falsified results to convict defendants who were later exonerated.¹³ His misconduct resulted from a desire to see the suspects convicted

8. Cf. Garrett & Neufeld, *supra* note 5, at 1 (showing past instances of wrongful convictions stemming at least in part from invalid testimony or evidence).

9. Since the release of the state audit and newspaper series, defense attorneys have raised the problems at the SBI Crime Lab at trial, and convicted inmates have sought new trials and appeals on the basis of the lab's failings. See, e.g., Mandy Locke & Joseph Neff, *Distrust of SBI Appears in Court*, NEWS & OBSERVER (Raleigh, N.C.), Aug. 24, 2010, at 1A, available at <http://www.newsobserver.com/2010/08/24/644545/distrust-of-sbi-appears-in-court.html> (quoting one district attorney as saying he expected to "encounter jurors who won't believe in the SBI anymore"). Michael Peterson, the Durham, North Carolina, novelist whose murder trial grabbed international headlines in 2003, is the most high-profile defendant to seek a new trial based on SBI issues. See Mandy Locke, *Peterson Bases Appeal on Questions About SBI*, NEWS & OBSERVER (Raleigh, N.C.), Feb. 16, 2011, at 1A, available at <http://www.newsobserver.com/2011/02/16/992625/michael-peterson-questions-sbi.html> (explaining that the basis for his request for a new trial is that jurors were misled into trusting analyst Duane Deaver as a "stand-up agent").

10. Garrett & Neufeld, *supra* note 5, at 1.

11. *Id.* at 2 (noting that the testimony involved seventy-two forensic analysts employed by fifty-two labs, practices, or hospitals from twenty-five states and was not merely the problem of a handful of analysts often called by prosecutors). In fact, the first convicted person to ever be exonerated by DNA evidence, Gary Dotson, was the victim of misleading testimony by a forensic scientist. *Id.* at 4–5. The analyst testified that both the victim's rapist and Dotson had rare Type B blood. *Id.* at 4. The analyst, however, failed to disclose that the sample could have come from the victim herself, who also had Type B blood. *Id.* at 4–5.

12. Forensic serology involves the identification and study of blood and other bodily fluids, but is distinct from DNA analysis, which attempts to connect a sample to a particular person. Lisa A. Gefrides & Katherine E. Welch, *Serology and DNA*, in THE FORENSIC LABORATORY HANDBOOK 1, 1 (Ashraf Mozayani & Carla Noziglia eds., 2006).

13. Paul C. Giannelli, *The Abuse of Scientific Evidence in Criminal Cases: The Need for Independent Crime Laboratories*, 4 VA. J. SOC. POL'Y & L. 439, 442–47 (1997).

and a system that allowed his actions to pass undetected.¹⁴ The fallout was significant: the West Virginia Supreme Court of Appeals ruled that all evidence and testimony from Zain was to be considered invalid during a habeas review of a convicted defendant's case and created a special post-conviction form for those "seeking habeas relief on a Zain issue."¹⁵ West Virginia continued to deal with the ramifications of the scandal more than a decade later.¹⁶ Then, in a separate scandal in the late 1990s, the FBI forensic laboratory fell under scrutiny for problematic practices, a probe of which also uncovered misconduct by agents favoring the prosecution.¹⁷ These are only two of many incidents involving faulty forensic science testimony.¹⁸

Unfortunately, Zain is not the last serologist at the center of a forensic science controversy. In North Carolina, former SBI agent and serologist Duane Deaver faces allegations of misconduct that played a role in the 1993 wrongful conviction of Greg Taylor for the murder of a prostitute, Jacquetta Thomas.¹⁹ In 2009, the North

14. *Id.* at 445–47. Zain left his job in West Virginia in 1989, but the State did not indict him until 1994. *Id.* at 447, 449. In the meantime, he held a forensic position in Texas. *Id.* at 447. Shockingly, prosecutors in West Virginia sent evidence to Zain, while he was in Texas, after their local serologists failed to reach the conclusions the prosecutors desired. *Id.*

15. *In re Investigation of W. Va. State Police Crime Lab., Serology Div.*, 438 S.E.2d 501, 506–08 (W. Va. 1993). During habeas review, a defendant challenges the legality of his arrest or imprisonment. See BLACK'S LAW DICTIONARY 778 (9th ed. 2009). Thus, in cases where scientific testimony and/or evidence played a large role in the prosecution's case, the automatic invalidation of that evidence removes a major barrier for defendants seeking to have their convictions overturned. See *id.* The West Virginia Supreme Court of Appeals later found "no showing that any state police serologist other than Trooper Zain engaged in any regular practice of falsifying or misrepresenting scientific results in his or her testimony" and closed the investigation with the exception of the ongoing accreditation process. *In re Investigation of W. Va. State Police Crime Lab., Serology Div.*, 445 S.E.2d 165, 167–68 (W. Va. 1994).

16. See Rachele Bott, *Zain Changed Results, Trooper Says*, CHARLESTON GAZETTE (W. Va.), Sept. 13, 2001, at 7B, available at Factiva, Doc. No. CGAZ000020010914dx9d00080.

17. See OFFICE OF THE INSPECTOR GEN., U.S. DEP'T OF JUSTICE, THE FBI DNA LABORATORY: A REVIEW OF PROTOCOL AND PRACTICE VULNERABILITIES i–iii (2004) [hereinafter DOJ REPORT]; Richard A. Serrano, *Misconduct Allegations Arise in FBI Lab Probe Inquiry*, L.A. TIMES, Jan. 30, 1997, at A1, available at http://articles.latimes.com/1997-01-30/news/mn-23649_1_crime-lab.

18. See generally Giannelli, *supra* note 13 (detailing many cases of false scientific evidence and misconduct by analysts, including incidents in Texas and Mississippi).

19. Mandy Locke, *Innocence Panel Sets Greg Taylor Free*, NEWS & OBSERVER (Raleigh, N.C.), Feb. 17, 2010, <http://www.newsobserver.com/2010/02/17/343552/taylor-to-go-free.html>. Deaver faced a criminal contempt charge arising out of his testimony before the Innocence Inquiry Commission. Martha Quillin, *Deaver Ordered into Talks with Innocence Panel*, NEWS & OBSERVER (Raleigh, N.C.), Aug. 6, 2011, at 1B, available at

Carolina Innocence Inquiry Commission (“Innocence Commission”), the first state agency of its kind,²⁰ exonerated Taylor of the conviction that was largely based on misrepresented forensic evidence.²¹ The exoneration prompted a wave of news stories, an investigation, and an audit, uncovering widespread bias and abuse in the SBI Crime Lab.²² The discoveries shook up the criminal justice world in North Carolina and led to renewed calls for reforms.²³

The push for change in North Carolina comes on the heels of a congressional report issued in 2009 on the state of forensic science in the United States and identifying steps that ought to be taken to improve the system.²⁴ While leaving aside reform of the law of evidence, the report recommended an overhaul of the forensic science system, which it found plagued by bias and unreliable

<http://www.newsobserver.com/2011/08/06/1394477/deaver-ordered-into-talks-with.html>. Though Deaver has been cleared of the criminal contempt charge, he remains a defendant in a civil suit by Taylor. Joseph Neff & Mandy Locke, *Ex-SBI Agent Cleared of Contempt Charge*, NEWS & OBSERVER (Raleigh, N.C.), Sept. 15, 2011, at 1B, available at <http://www.newsobserver.com/2011/09/15/1489922/ex-sbi-agent-cleared-of-contempt.html>; Mandy Locke & Joseph Neff, *Taylor Suit Seeks Money from SBI*, NEWS & OBSERVER (Raleigh, N.C.) June 29, 2011, at 1B, available at <http://www.newsobserver.com/2011/06/29/1308453/taylor-suit-seeks-money-from-sbi.html>.

20. See Patrik Jonsson, *North Carolina Creates a New Route to Exoneration*, CHRISTIAN SCI. MONITOR (Aug. 10, 2006), <http://www.csmonitor.com/2006/0810/p01s01-usju.html>; *About Us*, N.C. INNOCENCE INQUIRY COMM’N, <http://www.innocencecommission-nc.gov/about.html> (last visited Nov. 12, 2011).

21. See *State v. Taylor*, No. 91-CRS-71728, slip op. at 3 (N.C. Super. Ct. Feb. 17, 2010), available at <http://www.wral.com/asset/news/local/2010/02/18/7071171/taylordecision.pdf>; Motion for Order to Show Cause at 1, *State v. Deaver*, 10-CRS-016362 (N.C. Super. Ct. Oct. 7, 2010), available at http://www.wral.com/asset/news/state/2010/10/07/8417106/Motion_Exhibits_and_Order.pdf (asking Deaver to show cause as to “why he should not be held in criminal contempt for providing false and misleading testimony” before the Innocence Commission); CHRIS SWECKER & MICHAEL WOLF, AN INDEPENDENT REVIEW OF THE SBI FORENSIC LABORATORY 5 (2010), available at <http://ncdoj.gov/getdoc/0a92ee81-0667-4935-b2d3-221d4f586c61/Independent-Review-of-SBI-Forensic-LAB.aspx> (stating that while the Innocence Commission itself did not state a reason for its decision to exonerate Taylor, a lot of the Innocence Commission’s time was spent on the testimony of Deaver).

22. See SWECKER & WOLF, *supra* note 21, at 2 (describing the *Taylor* case as the impetus behind the audit).

23. Mandy Locke & Joseph Neff, *Lawyers Want a Crime Lab Independent of SBI*, NEWS & OBSERVER (Raleigh, N.C.), Aug. 18, 2010, <http://www.newsobserver.com/2010/08/16/630860/lawyers-want-crime-lab-changes.html>.

24. See generally NAT’L RESEARCH COUNCIL OF THE NAT’L ACADS., STRENGTHENING FORENSIC SCIENCE IN THE UNITED STATES: A PATH FORWARD (2009) (identifying problems in the forensic science system and making recommendations for changes).

science.²⁵ The centerpiece of the report is a recommendation for the creation of a national forensic science regulatory agency.²⁶ Given the nature of national policymaking and the gravity of the problems, though, states may want to implement their own reforms rather than wait for Congress to act.²⁷ Moreover, federal reforms would only work if states voluntarily implement them, enticed, perhaps, by access to federal databases or funds.²⁸

Calls for reform in North Carolina have not fallen on deaf ears. The Forensic Sciences Act of 2011, signed into law in March 2011, implemented a few positive changes in order to “encourage efforts to eliminate sources of human error in forensic examinations.”²⁹ The Act renames the SBI Crime Lab the “North Carolina State Crime Laboratory,” de-emphasizing the law enforcement oversight but not actually removing the lab from SBI control.³⁰ The Act’s most significant change is the creation of a Forensic Science Advisory Board (“Board”) with forensic scientists from various disciplines as members.³¹ The Board’s role is to review the SBI Crime Lab’s operations and make recommendations for new programs, protocols, and qualification standards for employees.³² The Board is authorized, upon request by the SBI Crime Lab’s director, to review the work of lab employees.³³ The Act also creates an ombudsman to “ensure all processes, procedures, practices, and protocols at the Laboratory are

25. See *The Need to Strengthen Forensic Science in the United States: The National Academy of Sciences’ Report on a Path Forward: Hearing Before the S. Comm. on the Judiciary*, 111th Cong. 3–4 (2009) (statement of the Honorable Harry T. Edwards).

26. NAT’L RESEARCH COUNCIL OF THE NAT’L ACADS., *supra* note 24, at 19.

27. Senator Patrick Leahy introduced a bill in January 2011 to create an Office of Forensic Science within the U.S. Department of Justice, but the bill does not address issues of independence. Criminal Justice and Forensic Science Reform Act of 2011, S. 132, 112th Cong. (as referred to the S. Comm. on the Judiciary, Jan. 25, 2011). The bill was referred to the Senate Committee on the Judiciary where it remains as of this writing. *S. 132: Criminal Justice and Forensic Science Reform Act of 2011*, GOVTRACK.US, <http://www.govtrack.us/congress/bill.xpd?bill=s112-132> (follow link for “View Committee Assignments”) (last visited Nov. 12, 2011).

28. See NAT’L RESEARCH COUNCIL OF THE NAT’L ACADS., *supra* note 24, at 13 (“Congress does not have free reign to amend state criminal codes, rules of evidence, and statutes governing civil actions; nor may it easily and directly regulate local law enforcement practices, state and local medical examiner units, or state policies covering the accreditation of crime laboratories and the certification of forensic practitioners.”); see also DOJ REPORT, *supra* note 17, at 16 (noting that use of the FBI’s DNA database is contingent upon the lab’s adherence to quality control procedures).

29. Forensic Sciences Act of 2011, 2011-1 N.C. Adv. Legis. Serv. 38 (LexisNexis).

30. *Id.*

31. *Id.* § 2, at 38.

32. *Id.* § 2, at 39.

33. *Id.*

consistent with State and federal law, best forensic law practices, and in the best interests of justice in this State.”³⁴ Furthermore, the Act clarifies the role of SBI-employed scientists as in service to “the public and the criminal justice system.”³⁵ These changes are a start, although only time will tell how effective the advisory board will be.³⁶ The suggestions in this Comment go beyond this legislation to address the root causes of the problems that led to a breakdown in the system. The creation of the Forensic Science Advisory Board, however, is still instrumental to the success of any future reforms.

To properly address this situation in North Carolina, forensic crime laboratories should be removed from direct state control. Local or state law enforcement agencies or the State generally should no longer operate forensic crime labs, though any labs working on North Carolina cases should still answer to the State under its regulatory authority. Labs in the private sector should contract with the state to provide services to law enforcement, state public defenders, and state district attorneys’ offices, while also remaining open to private defense counsel. Independent labs would be an important tool in eliminating the bias discovered during the recent probe of the SBI Crime Lab, but they would also serve two other important purposes: prosecuting indigent defendants with objective forensic science that is not directly linked to law enforcement and providing defendants with access to the scientific reports with which the prosecution will confront them at trial.

Finally, all forensic laboratories working on North Carolina cases should be accredited by a state-approved accrediting agency. The State should adopt uniform requirements and guidelines across every field of the forensic sciences regarding the reliability of certain

34. § 6(a), at 40. The ombudsman’s office recently issued its first report with several recommendations that will be mentioned throughout this Comment. See OFFICE OF THE OMBUDSMAN, N.C. ATTORNEY GEN., OMBUDSMAN’S REPORT 7 (2011) [hereinafter OMBUDSMAN’S REPORT], available at <http://www.ncdoj.gov/getdoc/da328def-dab5-4297-b85e-77bb490ca2cb/Report-of-the-Ombudsman.aspx> (scroll to the twelfth page of the document for the beginning of the Ombudsman’s Report); *infra* notes 78, 131, and 220; *infra* note 92 and accompanying text.

35. 2011-1 N.C. Adv. Legis. Serv. 38, 38.

36. Hopefully, North Carolina will do better than Maryland’s first attempt to create such a board. Maryland created a similar advisory board, the Maryland State Forensic Sciences Advisory Board, by executive order in 2006. Exec. Order No. 01.01.2006.11, MD. CODE REGS. 01.01.2006.11 (2006). That board never held a meeting, as its members were never appointed. *Forensic Sciences Advisory Board*, MD. STATE ARCHIVES (Oct. 14, 2008), <http://www.msa.md.gov/msa/mdmanual/26excom/defunct/html/15forensic.html>. However, Maryland currently has a Forensic Laboratory Advisory Committee. MD. CODE ANN., HEALTH-GEN. § 17-2A-12 (LexisNexis 2009).

techniques, reporting of test results, and other best practices. Such uniform standards could be a resource for judges in determining the admissibility of forensic evidence at trial or act as a stop-gap where judges are not performing this role. Moreover, a successful makeover of North Carolina's system could serve as a model for other states in the absence of federal action, as well as prompt the federal government to initiate nationwide reform.³⁷

Part I of this Comment details the state of the forensic science system in North Carolina, as well as the potential ramifications of past errors that have yet to be fully realized in the aftermath of the SBI Crime Lab scandal. Part II describes the primary solution— independence of forensic laboratories—and argues why incorporating a burgeoning private forensic science industry will be key in eliminating bias. Part III discusses the need for government-required accreditation and uniform best practices. This Part also examines how these suggested reforms will help in the absence of strong legal standards of admissibility, as well as why these proposals will do more to fix the system than tightening legal evidentiary rules. Finally, Part IV addresses some concerns regarding an approach that utilizes private sector labs to perform work for the government in criminal cases.

I. A MISCARRIAGE OF JUSTICE REVEALS DEEP-SEATED PROBLEMS IN THE SBI CRIME LAB

North Carolina's forensic science system came under fire after an innocent man's conviction was overturned. The problems revealed, however, were not new, and the public attention paid to the SBI Crime Lab only intensified after the dramatic exoneration, leading to further discoveries of improper practices and tainted cases and ultimately drawing the attention of state legislators. This Part traces the history of the SBI Crime Lab and details the scandal that has unfolded.

The State Bureau of Investigation ("SBI") is a statewide law enforcement agency charged with helping local law enforcement agencies, at their request, with serious criminal investigations.³⁸ The

37. Other jurisdictions are already thinking creatively to shore up the integrity of their forensic science systems. One proposal in Washington, D.C., for example, would remove the District's crime lab from police control and place it under the mayor's control. Freeman Klopott, *Gray Backs Independent Crime Lab*, WASH. EXAMINER, Feb. 7, 2011, <http://washingtonexaminer.com/local/dc/2011/02/gray-backs-independent-crime-lab>.

38. *State Bureau of Investigation*, N.C. DEP'T OF JUSTICE, <http://www.ncdoj.gov/About-DOJ/State-Bureau-of-Investigation.aspx> (last visited Nov. 12, 2011).

agency also has original jurisdiction over several specific criminal areas, including drug and arson investigations.³⁹ The SBI Crime Lab assists in these state and local investigations by examining evidence for free for any public law enforcement agency in North Carolina, utilizing three facilities located across the state.⁴⁰ As a unit of the SBI since its inception in 1937, the SBI Crime Lab falls under the broader umbrella of the North Carolina Department of Justice, ultimately answering, therefore, to the state attorney general.⁴¹ An assistant director oversees the SBI Crime Lab itself and reports to the director of the SBI, both of whom are appointed by the attorney general, and special agents-in-charge head each laboratory facility.⁴²

This law enforcement structure contributed to the problems that led to Greg Taylor's wrongful conviction. Taylor was accused of the September 1991 murder of Jacquetta Thomas, who was found stabbed and beaten in downtown Raleigh, North Carolina.⁴³ Police quickly focused their investigation on Taylor, who had been doing drugs with a friend in the area and whose SUV was found abandoned near the crime scene.⁴⁴ In 1993, a police officer involved in the investigation testified against Taylor, basing his testimony on a lab

39. *Id.*

40. N.C. GEN. STAT. § 114-16 (2009) (establishing the crime lab and its purpose as a resource to local law enforcement for major crimes), *amended by* Forensic Sciences Act of 2011, § 10; *Crime Lab*, N.C. DEP'T OF JUSTICE, <http://ncdoj.gov/About-DOJ/State-Bureau-of-Investigation/Crime-Lab.aspx> (last visited Nov. 12, 2011).

41. N.C. GEN. STAT. § 114-16.

42. *Id.*; *SBI Director & Leadership*, N.C. DEP'T OF JUSTICE, <http://ncdoj.gov/About-DOJ/State-Bureau-of-Investigation/SBI-Director-and-Leadership.aspx> (last visited Nov. 12, 2011). After the scandal broke, then-SBI Director Robin Pendergraft left for a different position within the state's Department of Justice and was replaced by Greg McLeod. Mandy Locke & Joseph Neff, *Cooper Replaces SBI Director, Suspends Bloodstain Analysis*, NEWS & OBSERVER (Raleigh, N.C.), July 30, 2010, at 1A, *available at* <http://www.newsobserver.com/2010/07/30/603969/cooper-replaces-sbi-director-suspends.html>. The SBI Crime Lab itself is currently led by Assistant Director Judge Joe John Sr. *Crime Lab*, *supra* note 40. Judge John took over in October of 2010 as the acting assistant director and was charged with overseeing audits of the other sections of the crime lab that were not covered in the initial audit. *Cooper Names Another Interim Chief of SBI Crime Lab*, WRAL.COM (Oct. 13, 2010), <http://www.wral.com/news/local/story/8445418/>. Judge John's position became permanent in October of 2011 after an advisory panel conducted a nationwide search and unanimously recommended Judge John's permanent appointment to Attorney General Roy Cooper. *Acting SBI Crime Lab Director Permanently Gets the Job*, NBC17.COM (Oct. 7, 2011), <http://www2.nbc17.com/news/2011/oct/07/acting-sbi-crime-lab-director-permanently-gets-job-ar-1475464/>.

43. Mike Klinkosum, *State v. Taylor and The North Carolina State Bureau of Investigation Lab Scandal*, CHAMPION, May 2011, at 10, 10–11, *available at* <http://www.nacdl.org/champion.aspx?id=20606>.

44. *Id.*

report prepared by SBI agent-analyst Duane Deaver.⁴⁵ The officer testified that, according to the report, tests on the fender liner of Taylor's vehicle showed the presence of blood.⁴⁶ The jury convicted Taylor of first-degree murder, sentencing him to life in prison.⁴⁷ Fourteen years later, Deaver disclosed that the presence of blood indication was based on preliminary presumptive tests.⁴⁸ Such tests are accepted at face value if they yield a negative result but must prompt further testing upon a positive result due to the test's tendency to yield false positives.⁴⁹ He also disclosed that additional, more sensitive tests were done and that these tests were negative for the presence of blood—a fact left out of Deaver's report and never disclosed during Taylor's trial.⁵⁰ Deaver ultimately told the Innocence Commission that he was following SBI standard procedure by not reporting the negative test result following a positive presumptive test result.⁵¹ The state attorney general fired Deaver in January 2010, citing contempt of court charges filed by the Innocence Commission and an inappropriate statement at the end of a videotaped bloodstain pattern experiment in another murder investigation.⁵² Although the bloodstain experiment itself was discredited by other scientists as

45. Transcript of Evidence at 140–45, *State v. Taylor*, 91-CRS-71728, 92-CRS-307 (N.C. Super. Ct. July 20, 2003), *available at* <http://www.wral.com/asset/news/local/2009/09/16/6014105/79539-TRANSCRIP.pdf>. The assistant district attorney prosecuting the case misspoke, erroneously stating that Deaver's first name was "Wayne." *Id.* at 140. The witness, Agent Donald Pagani, however, correctly identified Deaver, calling him "P.D. Deaver," an abbreviation for Paul Duane Deaver. *Id.*; *see* Motion for Order to Show Cause, *supra* note 21, at 1 (showing Deaver's full name to be "Paul Duane Deaver").

46. Transcript of Evidence, *supra* note 45, at 140. The testimony of the presence of blood was based on a field test using a chemical known as phenolphthalein and the SBI report stating that a test at the lab revealed "chemical indications for the presence of blood." *Id.* at 141, 145.

47. *See* SWECKER & WOLF, *supra* note 21, at 5.

48. *Id.* at 6. A familiar example of a "presumptive test" is the use of luminol at crime scenes to detect blood. *Id.* at 16. For more on presumptive tests, *see infra* notes 168–71 and accompanying text.

49. GIANNELLI & IMWINKELRIED, *supra* note 3, § 17.04 (describing sensitive tests such as phenolphthalein and luminol which are conclusive when yielding negative results but are disputed with regard to positive results). Laboratories typically run preliminary tests, followed by presumptive tests, and then confirmatory tests. *Id.*

50. SWECKER & WOLF, *supra* note 21, at 6.

51. *Id.* at 6–7.

52. Joseph Neff & Mandy Locke, *SBI Fires Much-Criticized Agent*, NEWS & OBSERVER (Raleigh, N.C.), Jan. 11, 2011, at 1B, *available at* <http://www.newsobserver.com/2011/01/11/912357/sbi-fires-much-criticized-agent.html>; *see also* Motion for Order to Show Cause, *supra* note 21, at 1 (requesting that Deaver show cause as to why he should not be held in criminal contempt for his false testimony in the Taylor case). Instead of facing a judge, Deaver was ordered into mediation with the Innocence Commission. Quillin, *supra* note 19.

tailor-made for the prosecution, Deaver's statement was cited as the reason for his firing.⁵³ He reportedly stated "Oh, even better, holy cow, that was a good one. Beautiful. That's a wrap, baby."⁵⁴ Though a judge dismissed the criminal contempt charge,⁵⁵ Deaver and four other former agents still face a civil lawsuit by Taylor.⁵⁶

Deaver's report may not have been the decisive factor in sending Taylor to prison for seventeen years. Moreover, the disclosure of the report's failings may not have been the key that let him out.⁵⁷ Nevertheless, the consequences have been enormous. An investigation by Raleigh's *News & Observer* found fraud in the lab's bloodstain analysis unit, policies that openly favored the prosecution and encouraged bias, and instances of testimony reporting ballistic tests as conclusive when such tests are widely recognized to be subjective.⁵⁸ The ensuing controversy also prompted the attorney general to order an audit of the lab's serology unit that identified troubling practices at the SBI Crime Lab extending over a sixteen-year period.⁵⁹ The audit noted "the potential that information that was material and even favorable to the defense of criminal charges filed was withheld or misrepresented" and blamed the issues on, among other things, lab policies, bias, a lack of standards, and an excess of discretionary authority on the part of the analysts.⁶⁰

The audit focused on cases similar to Taylor's and found that lab files, other than final reports, were routinely withheld from the accused for review and were not requested by prosecutors or defense attorneys.⁶¹ In addition, 230 files, including seven death penalty cases, were plagued by problems like those in Taylor's case.⁶² In each case, lab notes showed that a positive presumptive test had been followed up by a negative, inconclusive, or no-result confirmatory test; yet, the final reports did not include these follow-up tests.⁶³ The audit stated that in five of the cases, all handled by Deaver, the results were blatantly misrepresented; the report indicated the presence of blood

53. Neff & Locke, *supra* note 52.

54. *Id.* (describing the comment as one that was "more film director than scientist").

55. Neff & Locke, *supra* note 19.

56. Locke & Neff, *supra* note 19.

57. *Cf.* SWECKER & WOLF, *supra* note 21, at 5 (noting that the three-judge panel that freed Taylor never announced its reasoning).

58. *See generally* *Agents' Secrets*, *supra* note 6 (compiling all of the newspaper's reports on the SBI).

59. *See* SWECKER & WOLF, *supra* note 21, at 2, 4, 30-31.

60. *Id.* at 4.

61. *Id.* at 4, 25-26.

62. *See id.* at 9.

63. *Id.*

or inconclusive results when the confirmatory test was, in fact, negative.⁶⁴

The audit also found that analysts left out the inconclusive follow-up tests as part of “sanctioned practice” prior to 1997 and as part of official SBI policy after 1997.⁶⁵ As late as 1996, SBI guidelines told analysts not to provide files and notes to the defense without a court order, but the lab made the files available to the prosecutor upon request.⁶⁶ Finally, the audit noted that the section chief at the time viewed law enforcement as the SBI Crime Lab’s customer, for whom results should be tailored.⁶⁷

The report, drafted following the conclusion of the audit, recommended that the SBI review the identified problematic cases; provide training in “constitutional and statutory discovery requirements, legal aspects of forensic science and the role of forensic laboratories as an objective reporter”; and create procedures for routinely providing *all* relevant lab files to the defense.⁶⁸

Though the full extent of the fallout from the audit and news reports has yet to be realized, the judicial system has begun to take notice. In December 2010, a judge, citing shoddy work by the SBI Crime Lab, threw out charges against Derrick Allen, a man jailed for twelve years for the murder and sexual assault of a two-year-old girl.⁶⁹

64. *Id.* at 11.

65. *Id.* at 12. An FBI memo states that the SBI’s reporting practices were not in line with common practices at other labs. Joseph Neff & Mandy Locke, *SBI in Minority on Test Results*, NEWS & OBSERVER (Raleigh, N.C.), Dec. 26, 2010, at 1B, *available at* <http://www.newsobserver.com/2010/12/26/881887/sbi-in-minority-on-test-results.html>.

66. SWECKER & WOLF, *supra* note 21, at 13. Furthermore, the audit states that this dual standard, where prosecutors receive reports upon request but defense attorneys must seek a court order, reflects an “obvious conflict.” *Id.* Any practice of withholding results is constitutionally suspect. Legally, it is the prosecutor’s duty to provide exculpatory evidence to the defense. *See Brady v. Maryland*, 373 U.S. 83, 87 (1963). It is important to note, however, that “information in the files or possession of an investigative agency is deemed to be in the possession of the Prosecutor.” SWECKER & WOLF, *supra* note 21, at 8. Thus, regardless of whether prosecutors were aware of the reports, the State may be held responsible for withheld files.

67. SWECKER & WOLF, *supra* note 21, at 28. The audit did state that the chief and analysts at the lab considered the “criminal justice system as a whole” to be their client. *Id.* at 20.

68. *See id.* at 29. Because lab files in the possession of state lab employees are deemed under the law to be in the possession of the prosecutor, the prosecutor is responsible for making sure the defense receives exculpatory materials. *Id.* at 8. However, practically speaking, if prosecutors are also not receiving this information from the lab, fulfilling this constitutional requirement may be extremely difficult.

69. J. Andrew Curliss & Joseph Neff, *Allen’s Charges All Thrown Out*, NEWS & OBSERVER (Raleigh, N.C.), Dec. 11, 2010, at 1A, *available at* <http://www.newsobserver.com/2010/12/11/855898/allens-charges-all-thrown-out.html>.

Confirmatory tests on the victim's underwear were negative for blood, contradicting the final report issued by the lab and used by prosecutors in their case against Allen.⁷⁰

Given the seriousness of the problems identified by the audit and the consequences that have resulted, the recommendations do not go far enough. The audit explicitly states that many of the tests and policies outlined in the report are no longer in use,⁷¹ but the atmosphere and lack of accountability that allowed those policies and tests to go unchallenged for as long as they did will continue to exist until they are directly addressed.⁷² Similarly, the recently passed Forensic Sciences Act takes aim at the problems⁷³ but is not aggressive enough in its attempt at reform. What happened in West Virginia demonstrates the need for more than a quick fix. Years after Zain's actions and after attempts to address the problem, officials discovered more instances of misconduct by a different lab analyst.⁷⁴ If North Carolina does not take substantive steps to overhaul its forensic science system, the same mistakes will likely be repeated.

II. SEPARATING SCIENCE AND CRIME-FIGHTING TO FURTHER JUSTICE

The proposals that follow involve eliminating the SBI Crime Lab altogether and bringing in the private sector as part of the solution to the forensic science issues in North Carolina. However, as detailed in Part III, oversight will be key to using the private sector effectively. While several sources cited herein utilize the term "privatization," this Comment argues for a private-public partnership that combines private sector advantages with strict government regulation. This structure is not usually what comes to mind with the politically-charged term of "privatization," though that is often what is meant:

70. *Id.*

71. SWECKER & WOLF, *supra* note 21, at 31.

72. *Cf.* J. Andrew Curliss & Joseph Neff, *Lab Analyst Shrugs Off Audit That Rocked SBI*, NEWS & OBSERVER (Raleigh, N.C.), Dec. 10, 2010, at 1A, *available at* <http://www.newsobserver.com/2010/12/10/854147/lab-analyst-shrugs-off-audit-that.html> (revealing that at least one analyst rejected the report's findings as opinion); Joseph Neff, J. Andrew Curliss & Mandy Locke, *SBI Culture Resists Change*, NEWS & OBSERVER (Raleigh, N.C.), Dec. 12, 2010, at 1A, *available at* <http://www.newsobserver.com/2010/12/12/857966/sbi-culture-resists-change.html#storylink=misearch>.

73. *See generally* Forensic Sciences Act of 2011, 2011-1 N.C. Adv. Legis. Serv. 38 (LexisNexis) (providing a variety of conservative reforms, including changing the lab's name and creating an advisory board).

74. *See* Paul C. Giannelli, *Wrongful Convictions and Forensic Science: The Need to Regulate Crime Labs*, 86 N.C. L. REV. 163, 173-74 (2007) (finding that in the years following the Zain affair employees ignored important procedures).

The alternative to state ownership is rarely purely private, unregulated firms. State ownership is only one form of the continuum of governance structures that reflect the level of state regulation of public and privately owned firms. Many of the theoretical arguments for privatization are based on the premise that the harmful effects of state intervention have a greater impact under state ownership than under state regulation, not that the harmful effects can be eliminated through privatization.⁷⁵

A. Addressing Bias

With the state's crime lab under the umbrella of statewide law enforcement, analysts may begin to see themselves as investigators and, in some cases, feel the pressures to convict far more than the restrictions of scientific objectivity would otherwise allow. This bias can infect the results of scientific inquiry that are then presented to juries as impartial science. The problem requires an aggressive solution—removing crime labs from law enforcement oversight and from the government's direct control.

Positioning crime labs outside the province of law enforcement will limit the tendency for analysts to see themselves as crime-fighting agents with the objective of catching and convicting criminals, allowing them to occupy the role they were intended to have—scientists with no personal or professional stake in the outcome of any particular test.⁷⁶ While simply employing analysts in the private sector may not eliminate personal biases on the part of the employees, this action will remove incentives to favor the State's case inherent in a system where the scientists are themselves not only state employees but are also often employed as law enforcement personnel.⁷⁷ In North Carolina, about half of the analysts in the SBI Crime Lab during the audited period were sworn SBI agents.⁷⁸ Experts in cognitive bias

75. William L. Megginson & Jeffry M. Netter, *From State to Market: A Survey of Empirical Studies on Privatization*, 39 J. ECON. LIT. 321, 331 (2001) (internal citations omitted).

76. JUSTICE PROJECT, IMPROVING THE PRACTICE AND USE OF FORENSIC SCIENCE: A POLICY REVIEW 6 (2008), available at <http://truthinjustice.org/forensics-fin.pdf>.

77. *Id.*

78. SWECKER & WOLF, *supra* note 21, at 16. There may be reluctance to employ non-agents in some fields where law enforcement perceives a need for extra secrecy. The audit of the SBI Crime Lab noted that positions in the latent fingerprint section were not filled with qualified non-SBI agents because of its use in the investigation of "clandestine drug laboratories." *Id.* Further, biases may be more pronounced in more subjective disciplines such as fingerprint analysis. See JUSTICE PROJECT, *supra* note 76, at 6; see also GIANNELLI & IMWINKELRIED, *supra* note 3, §§ 16.01–16.12 (noting the importance of fingerprint

argue that it is this “institutional regime of police forensics” that creates improper motivations.⁷⁹ Because of the close working relationship fostered in this system, lab employees subconsciously adopt the role of prosecutor, allowing the State’s agenda to color their work as scientists.⁸⁰ Experts concerned about cognitive bias worry less about gross misconduct, which may result from deeper, more personal biases, and more about the effect on otherwise good scientists: “If permitted to run uncontrolled through forensic practice, observer effects can lead competent and honest forensic scientists, using well-validated techniques, to offer sincere conclusions that are, nevertheless distorted and inaccurate.”⁸¹ Moreover, when these cognitive effects become pervasive enough, the entire system may fall prey to a pro-prosecution point of view. This appears to be the case with the SBI Crime Lab, as evidenced by its overtly pro-prosecution policies regarding the sharing of reports.⁸² The problem is worse when the legislative mandate authorizing the lab’s existence affirms the improper role. Until recently, North Carolina law stated that SBI Crime Lab employees must “render a reasonable service to the prosecuting officers of the State in the discharge of their duties.”⁸³ When even subtle suggestion can infiltrate a lab’s collective psyche, overt statements of purpose like this may create even bigger

evidence, the limitations of the science of fingerprint analysis, and the numerous instances of mistaken identifications). The first report of the ombudsman to the SBI Crime Lab recommended eliminating the preference for sworn law enforcement officers in postings for open lab positions and reviewing the requirement that “analysts reporting to Clandestine Laboratories be sworn law enforcement officers.” OMBUDSMAN’S REPORT, *supra* note 34, at 7. Any effort to remove the crime laboratory from the purview of law enforcement will have to address the issue of the use of forensics in sensitive police operations. However, the author does not see this as a barrier to independence as other sections of the laboratory utilize non-sworn employees and surely, at least on occasion, examine evidence in sensitive cases.

79. Koppl, *supra* note 4, at 262–64 (“Only a structural change in the organization of forensic work is likely to greatly reduce cognitive bias in forensic work.”).

80. JUSTICE PROJECT, *supra* note 76, at 6; see D. Michael Risinger et al., *The Daubert/Kumho Implications of Observer Effects in Forensic Science: Hidden Problems of Expectation and Suggestion*, 90 CALIF. L. REV. 1, 18–19 (2002) (discussing a study of role and its cognitive effects that found forensic scientists “inevitably become part of the effort to bring an offender to justice” when they act as an “arm of the prosecution” and as a result take on a “viewpoint colored brightly with prosecutorial bias” (quoting James E. Starrs, *The Ethical Obligations of the Forensic Scientist in the Criminal Justice System*, 54 J. ASS’N OFFICIAL ANALYTICAL CHEMISTS 906, 910 (1971) (internal quotation marks omitted))).

81. Risinger et al., *supra* note 80, at 11.

82. SWECKER & WOLF, *supra* note 21, at 13.

83. N.C. GEN. STAT. § 114-16 (2009), *amended by* Forensic Sciences Act of 2011, sec. 10, § 114-16, 2011-1 N.C. Adv. Legis. Serv. 38, 42 (LexisNexis).

problems: "If even the mildest of expectations can affect perception, then it is not surprising to find that where an observer has strong motivation to see something, perhaps a motivation springing from hope or anger, reinforced by role-defined desires, that something has an increased likelihood of being 'seen.'"⁸⁴ Eliminating the "institutional regime" will go a long way toward reducing subtle prosecution bias and overtly pro-prosecution practices and policies.

This change could also add an additional degree of separation between the police investigators and the analysts who, under the current system, work too closely to direct the investigation toward a desired conclusion.⁸⁵ When law enforcement and lab personnel are no longer colleagues pursuing a common goal, the two sides may be less inclined to engage in improper collaboration. As one study found:

[E]vidence "often is presented to the forensic scientist in a needlessly suggestive manner." The samples are labeled as coming from the defendant or from the victim. The samples are "frequently accompanied by a synopsis of the investigation indicating the reasons that the investigators believe the suspect is guilty." This creates a bias by suggesting to the forensic worker what result is expected or correct.⁸⁶

Though removing the lab from state control may lessen bias toward the State, preventative measures must be taken to prevent a different improper motive, maximizing profits, from tainting results. The desire to profit could lead labs to tailor results toward pleasing a major client, a status for which the State would certainly qualify.⁸⁷ Potential side effects aside, creating truly independent labs will solve the bias problem the state is facing now. This reform will prevent

84. Risinger et al., *supra* note 80, at 24.

85. Cf. Koppl, *supra* note 4, at 262 (discussing how law enforcement officers may present evidence to analysts along with a summary of their theory of the case). Koppl also notes a move to the private sector would reduce state influence because, unlike public labs, private labs may have more than one client. *Id.* at 273. "In the current system, the police in a given jurisdiction have monopsony power in the forensics market. Such power may give them the ability to exercise inappropriate influence on the lab or labs in their jurisdiction." *Id.* In contrast, private labs, Koppl argues, could service several police jurisdictions. *Id.*

86. *Id.* at 262 (quoting Randolph N. Jonakait, *Forensic Science: The Need for Regulation*, 4 HARV. J.L. & TECH. 109, 160 (1991)) (internal citations omitted). See generally Risinger et al., *supra* note 80 (discussing observer effects on the scientific method and specifically how bias leads well-meaning forensic scientists to put forth inaccurate conclusions).

87. See *infra* Part IV.B (addressing the incentive to maximize profits).

superiors from creating an atmosphere where scientists will seek to garner convictions that are not their responsibility to secure.⁸⁸

Taking advantage of private sector resources would not be wholly unprecedented, as several state and local governments already utilize private labs.⁸⁹ The SBI Crime Lab, in fact, farmed out its bloodstain analysis work to LabCorp, a for-profit corporation providing laboratory analysis services,⁹⁰ in the wake of the audit and *Taylor* case.⁹¹ Moreover, the first report of the new ombudsman to the SBI Crime Lab recommends that the lab consider contracting out its toxicology testing in impaired driving cases in order to reduce a case backlog.⁹² A private market already exists nationwide for forensic laboratories, with one study estimating the market will reach \$20 billion in the coming years.⁹³ Moreover, at least one state crime lab uses private laboratories to do work it either lacks the expertise or time to do itself.⁹⁴ In 2004, about half of all publicly funded crime laboratories used private labs to supplement their own services.⁹⁵ Despite the cost of outsourcing cases piecemeal to private laboratories, law enforcement agencies often find the benefits worth

88. See Risinger et al., *supra* note 80, at 21 (discussing how a forensic scientist's superiors can affect the objectivity of the forensic scientist's work).

89. See, e.g., MATTHEW R. DUROSE, BUREAU OF JUSTICE STATISTICS, U.S. DEP'T OF JUSTICE, CENSUS OF PUBLICLY FUNDED FORENSIC CRIME LABORATORIES, 2005, at 1 (2008) (noting that a large portion of publicly funded labs turn to private labs for help with their workload); OFFICE OF THE ATTORNEY GEN., STATE OF CAL., CALIFORNIA TASK FORCE ON FORENSIC SERVICES REPORT 37 (2003) [hereinafter CALIFORNIA REPORT], available at <http://ag.ca.gov/publications/#forensic> (click on link for "California Task Force on Forensic Services Report") (discussing California's use of private labs); David M. Trontz, *Broward Law Enforcement Hiring Private Labs to Test DNA*, MIAMI CRIM. DEF. LAW BLOG (Aug. 2, 2010, 1:02 PM), <http://www.miamicriminaldefenselawyerblog.com/2010/08/broward-law-enforcement-hiring.html> (reporting that the Fort Lauderdale Police sought federal grants to subsidize the cost of using private labs for DNA analysis).

90. *About LabCorp*, LABCORP, <https://www.labcorp.com/wps/portal/aboutus> (last visited Nov. 12, 2011).

91. Mandy Locke & Joseph Neff, *SBI Looking to Private Crime Lab*, NEWS & OBSERVER (Raleigh, N.C.), Oct. 1, 2010, at 3B, available at <http://www.newsobserver.com/2010/10/01/712960/sbi-looking-to-private-crime-lab.html>.

92. OMBUDSMAN'S REPORT, *supra* note 34, at 7.

93. *Forensic Market to Reach \$20.52 Billion by 2015*, FORENSIC MAG. (Aug. 25, 2010), <http://www.forensicmag.com/news/forensic-market-reach-2052-billion-2015>.

94. California public labs, for example, sometimes used private labs for services they did not perform. CALIFORNIA REPORT, *supra* note 89, at 37. California, like many states, deals with slow turnaround times and large backlogs. *Id.* at 44-46. Law enforcement agencies in the state spent about \$6.6 million sending more than 60,000 cases to private laboratories. *Id.* at 50.

95. DUROSE, *supra* note 89, at 1.

the cost.⁹⁶ Private labs can get the results to investigators faster and more efficiently because of their ability to hire employees quickly as demand for services rises.⁹⁷ They also often have access to more up-to-date technology.⁹⁸

Other nations have also experimented with new structures for their forensic science systems.⁹⁹ In 1991, calls for forensic science reform in the United Kingdom led to the nation's forensic science laboratory, the Forensic Science Service ("FSS"), becoming an executive agency that could accept any client.¹⁰⁰ Police departments paid for forensic analysis on a case-by-case basis.¹⁰¹ The results may indicate, however, that the change did not go far enough—defense attorneys still did not trust analysts from the FSS to perform unbiased work.¹⁰² In 2010, with the general costs of England's criminal justice system ballooning, the government announced it would close the FSS and move to a wholly private system.¹⁰³

The use of private labs both on a small scale in the United States and on a larger scale in other countries demonstrates that such a change in North Carolina may constitute "out-of-the-box" thinking but certainly is not an unprecedented idea.

B. Maintaining an Adversarial System and Defendants' Access to Information

That the United States criminal justice system should be adversarial and protective of defendants' rights is clear from Supreme Court decisions requiring appointed counsel in serious criminal cases

96. Jeannine Heinecke, *Making the Case for "Genetic Justice,"* LAW ENFORCEMENT TECH., Mar. 2007, at 82, 86, available at [http://www.officer.com/print/Law-Enforcement-Technology/Making-the-Case-for-Genetic-Justice/1\\$35700](http://www.officer.com/print/Law-Enforcement-Technology/Making-the-Case-for-Genetic-Justice/1$35700) (noting that agencies can obtain results from private laboratories sooner than they could from state laboratories). For a discussion of why contracting with private labs for all tests, rather than occasionally farming out work, might be cost-effective, see *infra* notes 198–202 and accompanying text.

97. Heinecke, *supra* note 96, at 87 (noting that private labs can hire analysts in response to market conditions and that such privately hired analysts can become productive members of the team much sooner than analysts in the public system). For discussion of the efficiencies of private labs, see *infra* Part IV.A.

98. Heinecke, *supra* note 96, at 87–88.

99. See generally David E. Bernstein, *Junk Science in the United States and the Commonwealth*, 21 YALE J. INT'L L. 123 (1996) (describing various admissibility standards and forensic science structures in foreign countries).

100. *Id.* at 171.

101. *Id.*

102. *Id.* at 171–72. Despite the change in status of the FSS, observers found that defendant access to forensic experts remained poor. *Id.* at 172.

103. *Coalition to Shut Courts, Sell Forensics Agency*, REUTERS (Dec. 14, 2010), <http://uk.reuters.com/article/idUKTRE6BD5PC20101214>.

and defendant-protective rules of evidence.¹⁰⁴ The Sixth Amendment right to counsel, the Fifth Amendment right against self-incrimination, and the presumption of innocence, for example, are safeguards that “insure fundamental human rights of life and liberty.”¹⁰⁵ In an ideal adversary system, then, where scientific evidence and expert testimony come into play, the defendant could and would hire her own experts and order her own tests.¹⁰⁶ In reality, this rarely happens.¹⁰⁷ In the previously discussed national wrongful convictions study, researchers found that defense experts testified in only 19 out of the 137 cases studied.¹⁰⁸ Defense attorneys are often inexperienced regarding the use of scientific evidence and do not adequately challenge the State’s experts.¹⁰⁹ Furthermore, funding for defense experts and testing is spotty, with many judges denying funds to hire such experts.¹¹⁰ In North Carolina, a statute requires that

104. See, e.g., *Gideon v. Wainwright*, 372 U.S. 335, 344 (1963) (establishing, in a landmark opinion penned by Justice Black, that state courts, like federal courts, must provide counsel to indigent defendants in criminal cases and noting that every defendant should “stand[] equal before the law”).

105. *Id.* at 343 (quoting *Johnson v. Zerbst*, 304 U.S. 458, 462 (1938)).

106. See GIANNELLI & IMWINKELRIED, *supra* note 3, § 4.01 (discussing how even the presence of counsel can fail to provide a defendant with an adequate defense where funding is necessary). Justice Cardozo has said, too, that experts often are required for an adequate defense and the inability to utilize them will put defendants at an “unfair disadvantage.” *Reilly v. Berry*, 166 N.E. 165, 167 (N.Y. 1929).

107. See, e.g., *Garrett & Neufeld*, *supra* note 5, at 89.

108. *Id.*; see also *supra* notes 10–11 and accompanying text (discussing results of wrongful convictions study).

109. *Garrett & Neufeld*, *supra* note 5, at 89.

110. *Id.* at 89; Symposium, *supra* note 4, at 408 (“Some courts are more stubborn than others about providing funds for experts retained by the defense.”). The Symposium transcript cites cases on both sides of the funding issue. *Id.* at 408 n.8. The transcript cites *Dubose v. State*, 662 So. 2d 1189 (Ala. 1995), which held that the failure to provide funds for independent experts to an indigent defendant violated due process, as well as *Harrison v. State*, 644 N.E.2d 1243 (Ind. 1995), *superseded by rule*, IND. CRIM. R. 12, *on other grounds as stated in Allen v. State*, 737 N.E.2d 741 (Ind. 2000), *writ of habeas corpus, new trial granted on other grounds sub nom., Harrison v. Anderson*, 300 F. Supp. 2d 690 (S.D. Ind. 2004), *aff’d sub nom., Harrison v. McBride*, 428 F.3d 652 (7th Cir. 2005), *superseded by statute as stated in Ward v. State*, 903 N.E.2d 946 (Ind. 2009), which held that a similar failure was *not* a violation of due process. Judges often deny funding despite the fact that many state statutes purport to provide such funds and Supreme Court precedent holds that due process may require it. See GIANNELLI & IMWINKELRIED, *supra* note 3, §§ 4.02, 4.04. For example, the Federal Criminal Justice Act, 18 U.S.C. § 3006A (2006), provides poor defendants with expert assistance, but some courts require the defendant to show that the testimony would be “‘pivotal’ or ‘critical’ to the defense.” GIANNELLI & IMWINKELRIED, *supra* note 3, § 4.03, at 220. The Supreme Court has extended the due process requirement that the defense be allowed access to experts beyond its facts to non-capital cases. *Id.* § 4.05(a) (citing *Ake v. Oklahoma*, 470 U.S. 68 (1985)). Lower courts, however, are split on specific requirements, such as the burden the defendant must meet to show the need for expert assistance. *Id.* § 4.05(e). Furthermore, *Ake* dealt with

“[f]ees for the services of an expert witness . . . for an indigent person and other necessary expenses of counsel shall be paid by the State in accordance with rules adopted by the Office of Indigent Services.”¹¹¹ Those rules cover the provision of funds in capital cases.¹¹² In non-capital cases, the office will not provide funds absent a court order, in accordance with procedures in place prior to the office’s creation.¹¹³ North Carolina courts have found that such assistance requires a defense showing of “particularized need.”¹¹⁴ The defendant must establish either that without the assistance he would not receive a fair trial or that “there is a reasonable likelihood that the expert will materially assist him in the preparation of his case.”¹¹⁵ Furthermore, “[m]ere hope or suspicion that favorable evidence is available is not enough to require that such help be provided” to an indigent defendant.¹¹⁶ The determination is made on a case-by-case basis at the discretion of the trial judge.¹¹⁷

The Supreme Court of North Carolina frequently affirms trial judges’ determinations that expert assistance to the defendant is not required, usually when the defendant requests a psychiatric expert.¹¹⁸

psychiatric expert assistance in an insanity case, not forensic evidence, though the Court later indicated that the assistance of other scientific experts is not outside the scope of *Ake*. *Id.* § 4.05(c). Some worry that despite the mandate, the resources actually provided are inadequate. *Id.* § 4.02.

111. N.C. GEN. STAT. § 7A-454 (2009), *amended by* Act to Make Technical, Clarifying, and Other Modifications to the Current Operations and Capital Improvements Appropriations Act, § 31.23C.(b), § 7A-454, 2011-5 N.C. Adv. Legis. Serv. 485, 517 (LexisNexis).

112. *See generally* Memorandum from the Office of Indigent Def. Servs. to Indigent Def. Experts (Sept. 1, 2011), *available at* <http://www.ncids.org/Rules%20&%20Procedures/Fee%20and%20Expense%20Policies/Expert%20fees%20memo.pdf> (specifying expert witness fee rates and reimbursable expenses for Indigent Defense Services (“IDS”) funding).

113. *See generally* OFFICE OF INDIGENT DEF. SERVS., NON-CAPITAL EXPERT REQUESTS & PAYMENTS 1 (2007), *available at* <http://www.ncids.org/Rules%20&%20Procedures/Fee%20and%20Expense%20Policies/Non-capital%20experts.pdf> (requiring attorneys in non-capital cases to receive judicial authorization to qualify for IDS funding).

114. *In re J.B.*, 172 N.C. App. 1, 12, 616 S.E.2d 264, 271 (2005).

115. *Id.*

116. *State v. Holden*, 321 N.C. 125, 136, 362 S.E.2d 513, 522 (1987) (citing *State v. Tatum*, 291 N.C. 73, 82, 229 S.E.2d 562, 568 (1976)).

117. *See State v. Anderson*, 350 N.C. 152, 161, 513 S.E.2d 296, 302–03 (1999) (noting also that the court will provide funds upon a threshold showing in accordance with *Ake v. Oklahoma*, 470 U.S. 68 (1985), but that such a decision is to be made by the trial judge under a totality of the circumstances test); *see also State v. Seaberry*, 97 N.C. App. 203, 207, 388 S.E.2d 184, 187 (1990) (noting that a lower court decision to deny expert assistance “will not be overturned absent an abuse of discretion”).

118. *See, e.g., Anderson*, 350 N.C. at 163, 513 S.E.2d at 304 (affirming that the defendant did not meet the threshold requiring the court to provide funds for a forensic

In *State v. Seaberry*,¹¹⁹ the North Carolina Court of Appeals ruled against a defendant seeking an independent ballistics expert to testify for him during his trial on charges including assault with a deadly weapon with intent to kill.¹²⁰ The court emphasized that the ballistic evidence was not the only evidence against the defendant and that “[w]hile the ballistic expert’s testimony may have been important for the state to prove its case against Seaberry beyond a reasonable doubt . . . this fact alone is not sufficient to require the appointment of an independent expert.”¹²¹ In *McNeill v. Branker*,¹²² a United States District Court judge rejected a defendant’s argument that a state trial court’s denial of funding for a general forensic crime scene expert violated due process.¹²³ The defense asserted that the State’s case was “circumstantial” and that a generalist, one who could analyze multiple aspects of the case, was necessary to interpret the various pieces of evidence the State sought to use.¹²⁴

Without passing judgment on whether the defendants in these cases did or did not meet the required threshold for receiving government funds for expert assistance, the high threshold itself shows that while access to experts is automatic for the prosecution, access for indigent defendants is far from guaranteed.¹²⁵ Moreover,

psychiatrist). *But see* *State v. Jones*, 344 N.C. 722, 727, 477 S.E.2d 147, 149 (1996) (holding that the defendant had met the threshold requiring the court to provide funds for an expert psychiatrist and ordering a new trial). The distinguishing characteristic between *Anderson* and *Jones* was the type of defense the accused intended to raise. The *Anderson* court noted that defendant did not intend to raise an insanity defense, 350 N.C. at 163, 513 S.E.2d at 304, whereas in *Jones* the defendant planned to assert a defense based on diminished capacity, 344 N.C. at 726–27, 477 S.E.2d at 149.

119. 97 N.C. App. 203, 388 S.E.2d 184 (1990).

120. *Id.* at 210, 388 S.E.2d at 189.

121. *Id.*

122. 601 F. Supp. 2d 694 (E.D.N.C. 2009).

123. *Id.* at 725–27.

124. *Id.* at 727.

125. Encouragingly, though, the use of experts by indigent defendants is on the rise in North Carolina. OFFICE OF INDIGENT DEF. SERVS., EXPERT SPENDING STUDY: KEY FINDINGS 1, 4 (2003), *available at* <http://www.ncids.org/Reports%20&%20Data/Prior%20Publications/03ExpertSpendingStudyKeyConclusions.pdf> (showing a modest increase in the percentage of indigent defense funds going toward experts even after accounting for increases to keep pace with the annual growth of indigent defense cases). The study notes that the rise is not due to an increase in total funding resources but rather reflects a “shift of resources from attorneys to experts.” *Id.* at 1. The study identified several factors contributing to this shift, including the evolution of advanced forensic science such as DNA typing; the professionalized work of experts due to greater use; the improved quality of legal representation who employ experts strategically; and the fact that a shift represents a “more efficient allocation of resources.” *Id.* at 4. Interestingly, the study highlights the importance of defense experts, stating that a shift in resources from attorney fees to expert witnesses “has been beneficial or at least not harmful” with “fewer death

the funds that are provided may be inadequate and the experts available to defendants less qualified.¹²⁶ Because of this gap, the problem of bias in the SBI Crime Lab is all the more troublesome:

When you learn that forensic science is not done by neutral parties and you also learn that the poorest of people, the people who cannot hire an independent group to do the science, have to rely on law enforcement for their science, you become extremely concerned. What this means and how this operates or should operate in a system that presumes the innocence—not the guilt—of a defendant is disturbing. But the very people who are trying to put that accused in jail are the people who control the science.¹²⁷

While greater access to experts for indigent defendants is necessary, the use of private sector labs for the State's forensic investigation will help in the absence of such access. This proposal will not make the lab under contract with the State available to the defense for its own testing requests at the State's expense. It ensures, however, that where the defense cannot afford independent testing, the tests that are done are less subject to prosecutorial bias. At the very least, poor defendants will have access to evidence reviewed by analysts who are not directly employed by the State that is seeking to convict them.¹²⁸ Phil Kohn, a Las Vegas public defender, made the same point in a media interview regarding the city's crime lab, noting that his office spends \$1,000 per request to duplicate testing done by the prosecutor's lab.¹²⁹

sentences and more not guilty verdicts/dismissals/ [sic] or mistrial dispositions" during the prior three years. *Id.*

126. See GIANNELLI & IMWINKELRIED, *supra* note 3, § 4.02. Judge Jack Weinstein of the Eastern District of New York has found that the lack of qualified experts causes him to adjust his approach to admissibility. Jack B. Weinstein, *Science, and the Challenges of Expert Testimony in the Courtroom*, 77 OR. L. REV. 1005, 1008 (1998) ("I try to reflect before criticizing any expert because it may be that the party could not afford a better expert, or that the other side may have already monopolized all of the 'top people' in the field. So we tend, in our role as *Daubert* gatekeepers in the courtroom, to be rather flexible about allowing less-than-Nobel-laureates to testify. My own tendency is to allow admission rather freely, and then rule on a motion for a new trial, dismissal, or to strike the testimony.").

127. Symposium, *supra* note 4, at 418 (quoting criminal defense lawyer William Moffitt).

128. *Cf. id.* (lamenting that the "people who control the science" are the ones seeking to convict the defendant).

129. Steve Kanigher, *Is Independent Crime Lab the Right Move for Metro?*, LAS VEGAS SUN, July 19, 2011, <http://www.lasvegassun.com/news/2011/jul/19/independent-crime-lab-right-move-metro/>.

In life and death cases, we always give testing a second look to make sure there aren't errors. But I would be more comfortable in everyday cases if I had the same access to the lab that the district attorney has. It would be a lot better for everyone if we had one lab we could all use and it would save us money in the long run.¹³⁰

For such a system to work, however, the independent lab must be equally responsive to both defense and prosecuting attorneys with regard to the reporting results.¹³¹ The Forensic Sciences Act of 2011 sought to bolster procedures for providing defendants with law enforcement files by adding that test results, lab notes, preliminary tests, and screening results must be provided.¹³² While the amended language makes the duty to share this information more explicit, it does nothing to expand the duty that only arises upon a defendant's motion to the court.¹³³

Standard procedures for making results available to defense attorneys would further the Forensic Sciences Act's stated purpose—to "serve the public and the criminal justice system."¹³⁴ The Supreme Court in *Brady v. Maryland*¹³⁵ found that prosecutors have a

130. *Id.*

131. The SBI Crime Lab's website now states, "Lab analysts have been and remain accessible to all verified attorneys who wish to ask questions about tests performed and to visit with analysts for pre-trial conferences." *Crime Lab*, *supra* note 40. This language comes from the first report of the ombudsman to the SBI Crime Lab, which recommended reiterating the accessibility of the SBI's analysts and posting it on the website. OMBUDSMAN'S REPORT, *supra* note 34, at 7. The report states that any attorney of record in a case may contact lab counsel for access. *Id.* Despite this statement implying that lab analysts have always been available to the defense, the SBI audit found that *by stated policy* equal access "to all verified attorneys" was not the norm. SWECKER & WOLF, *supra* note 21, at 13. Still, this new language is encouraging and, hopefully, will be implemented in practice. See also Giannelli, *supra* note 13, at 473–74 (noting that scientific reports should be turned over to the defense). Giannelli argues that not only should the services of the lab be made available to the defense but that any reports prepared for the State ought to be given to the court and the defense *automatically* without regard to discovery. *Id.* The National Research Council took similar issue with a system that is not available to defense counsel: "Forensic science serves more than just law enforcement; and when it does serve law enforcement, it must be equally available to law enforcement officers, prosecutors, and defendants in the criminal justice system." NAT'L RESEARCH COUNCIL OF THE NAT'L ACADS., *supra* note 24, at 17. Defense attorneys, too, must get better; too often, they do not understand the scientific evidence at the heart of the case. See Koppl, *supra* note 4, at 265–66. Even when the lawyer is competent, a successful challenge to a State's expert requires a defense expert's opposing take. *Id.* at 266.

132. Forensic Sciences Act of 2011, sec. 9, § 15A-903, 2011-1 N.C. Adv. Legis. Serv. 38, 41 (LexisNexis).

133. *Id.*

134. Forensic Sciences Act of 2011, 2011-1 N.C. Adv. Legis. Serv. 38, 38 (LexisNexis).

135. 373 U.S. 83 (1963).

constitutional duty to disclose favorable evidence to the defense “where the evidence is material either to guilt or to punishment.”¹³⁶ Even where the defense does not make a request or makes a broad request for exculpatory materials, the prosecutor must disclose anything that is of an “obviously exculpatory character.”¹³⁷ While lab employees are not prosecutors themselves, under the current structure, the lab likely violates the Constitution if it withholds information from prosecutors who then cannot practically make that information available to the defense. This is because “[a]ny information in the files or possession of an investigative agency is deemed to be in the possession of the Prosecutor.”¹³⁸ Thus, as long as the SBI Crime Lab remains a state operation, the analysts employed by the lab have a constitutional duty to report negative, exculpatory results. The State should take charge by creating procedures or amending existing laws so that this constitutional duty may be routinely carried out.¹³⁹ The materials should be as freely available to the defense as they are to the prosecution for the lab to truly be considered a servant of the criminal justice system as a whole.¹⁴⁰

III. PULLING BACK THE REINS THROUGH OVERSIGHT AND REGULATION

The reforms discussed thus far, particularly a move to private labs, cannot exist without a structure in place to ensure that proper procedures are followed and problems identified and addressed as they arise. Mandatory accreditation by a reputable accrediting body and oversight by a state regulatory body will protect against the problems discussed in Part II.

136. *Id.* at 87; see also *infra* note 167 and accompanying text (outlining the constitutional duty of turning over evidence under *Brady*).

137. *United States v. Agurs*, 427 U.S. 97, 107 (1976).

138. SWECKER & WOLF, *supra* note 21, at 8.

139. Prosecutors may need to be educated on their duties. One North Carolina attorney wrote that prosecutors are ill-equipped to properly carry out discovery. William W. Gerrans, *The History of the Exposure of SBI Overreaching from a Defense Perspective*, TRUE BILL, Sept. 2010, at 5, 6 (noting that prosecutors “seem unaware that *Brady* material goes beyond exculpatory evidence and includes impeachment evidence or that NC law requires disclosure with enough time to ‘effectively use’ it at trial”).

140. In addition, the State should institute contemporaneous recordation of laboratory procedures so that defense attorneys can adequately follow what was done by analysts and so that evidence like that in the *Taylor* case—subsequent laboratory results which never made it into final reports—can be discoverable. See Giannelli, *supra* note 74, at 222–23.

A. Mandatory Accreditation

The primary accrediting company for crime laboratories in the United States is the American Society of Crime Laboratory Directors/Laboratory Accreditation Board (“ASCLD”), a not-for-profit board¹⁴¹ that accredits 25 private laboratories, 23 federal laboratories, 132 local laboratories, and 193 state laboratories, including the SBI Crime Lab.¹⁴² The revelations of misconduct and other improper practices at the SBI Crime Lab, however, have led to inquiries into the rigor of the ASCLD accreditation process and intimations of improper conflicts of interest.¹⁴³ For example, ASCLD is headquartered a few miles away from the main SBI lab and is led by former SBI officials.¹⁴⁴ Both the current executive director of the accrediting agency and its international program manager worked for the SBI during at least part of the time when the problematic procedures for reporting test results were in place.¹⁴⁵ The group’s accreditation arm also shares office space with its for-profit consulting group that helps labs attain accreditation.¹⁴⁶ Still, despite the apparent shortcomings of ASCLD in its oversight of the SBI Crime Lab, accreditation is a necessary requirement for a forensic lab handling evidence for the State and should be combined with government oversight.

Most laboratories seek accreditation voluntarily, and only a handful of states, including North Carolina, require accreditation.¹⁴⁷

141. *History of the American Society of Crime Laboratory Directors Laboratory Accreditation Board (ASCLD/LAB)*, AM. SOC’Y OF CRIME LAB. DIRS. LAB. ACCREDITATION BD., http://www.asclcd-lab.org/about_us/history.html (last visited Nov. 12, 2011).

142. *See ASCLD/LAB Accredited Laboratories*, AM. SOC’Y OF CRIME LAB. DIRS. LAB. ACCREDITATION BD., <http://www.asclcd-lab.org/labstatus/accreditedlabs.html> (last visited Nov. 12, 2011). ASCLD currently requires accredited labs to undergo inspections in the disciplines in which the lab provides services that are covered by the accrediting body, an annual audit, re-accreditation every five years, and proficiency testing. CALIFORNIA REPORT, *supra* note 89, at 19.

143. Mandy Locke & Joseph Neff, *Inspectors Missed All SBI Faults*, NEWS & OBSERVER (Raleigh, N.C.) (Aug. 27, 2010), <http://www.newsobserver.com/2010/08/26/648075/inspectors-missed-all-sbi-faults.html>; Joseph Neff & Mandy Locke, *Forensic Groups’ Ties Raise Concerns*, NEWS & OBSERVER (Raleigh, N.C.) (Oct. 13, 2010), <http://www.newsobserver.com/2010/09/26/703376/forensic-groups-ties-raise-concerns.html>.

144. Locke & Neff, *supra* note 143.

145. Neff & Locke, *supra* note 143; *ASCLD/LAB Office Staff*, AM. SOC’Y OF CRIME LAB. DIRS. LAB. ACCREDITATION BD., <http://www.asclcd-lab.org/staff.html> (last visited Nov. 12, 2011).

146. Neff & Locke, *supra* note 143.

147. N.C. GEN. STAT. § 8-58.20(b) (2009), *amended by* Forensic Sciences Act of 2011, sec. 7, § 8-58.20, 2011-1 N.C. Adv. Legis. Serv. 38, 40 (LexisNexis); Giannelli, *supra* note 74, at 212. Other states requiring accreditation in at least some circumstances (for

Still, not all labs endeavor to meet this standard with county labs less likely to seek accreditation than state labs.¹⁴⁸

The accrediting body must be reputable. While ASCLD is well-known and widely used—it accredited over seventy percent of labs nationwide in 2005¹⁴⁹—North Carolina ought to re-examine its use of ASCLD in light of the potential conflicts of interest and failures of oversight that allowed the problems at the SBI Crime Lab to persist. The use of ASCLD in this state was so entrenched that it was, until the recent passage of the Forensic Sciences Act of 2011, prescribed by law. State evidentiary law formerly required that for forensic analysis to be admissible, it had to “be performed in accordance with rules or procedures adopted by the State Bureau of Investigation, or by another laboratory accredited by the American Society of Crime Laboratory Directors/Laboratory Accreditation Board (ASCLD/LAB) for the submission, identification, analysis, and storage of forensic analyses.”¹⁵⁰ The recent revision to statutory law was needed to infuse flexibility into the choice of the accrediting body.¹⁵¹ Now, the State must use that flexibility to re-evaluate whether ASCLD is the right choice.

example, for DNA testing or when private labs are used) include Hawaii, Missouri, New York, and Wyoming. HAW. REV. STAT. ANN. §§ 844D-51, -54 (LexisNexis 2007) (requiring accreditation by ASCLD); MO. ANN. STAT. § 650.060 (West Supp. 2011) (“On or after December 31, 2012, any crime laboratory providing reports or testimony to a state court pertaining to a result of the forensic analysis of evidence shall be accredited . . .”); N.Y. EXEC. LAW § 995-b (McKinney 1996); WYO. STAT. ANN. § 7-12-306 (1996) (requiring accreditation when private labs are used as a substitute to the state crime lab).

148. DUROSE, *supra* note 89, at 3.

149. *Id.* As North Carolina’s situation shows, the most common accreditation board is not necessarily the right board. Chris Swecker, one of the authors of the SBI audit, told the NEWS & OBSERVER that he began the audit considering ASCLD to be the “gold standard,” but came away finding it a “minimum standard.” Mandy Locke & Joseph Neff, *Legislators: SBI Needs New Accrediting Agency*, NEWS & OBSERVER (Raleigh, N.C.), Sept. 17, 2010, at 1A, available at <http://www.newsobserver.com/2010/09/17/685970/legislators-sbi-needs-new-accrediting.html>; see also Janine Arvizu, *Forensic Labs: Shattering the Myth*, CHAMPION, May 2000, at 18, 20, available at http://www.nlada.org/forensics/for_lib/Documents/1107453386.76/90ded0ef0fb5abe085256982004e0b8f%3FOpenDocument%26Highlight%3D0%2Ceyewitness (noting that ASCLD’s accreditation program, though the only national program available, is “neither a technically strong, nor a truly independent program”).

150. N.C. GEN. STAT. § 8-58.20(b).

151. In addition to accreditation requirements, the Forensic Sciences Act of 2011 took the positive step of requiring certification of lab analysts to ensure that the analysts meet the proper qualifications for their positions. § 4, 2011-1 N.C. Adv. Legis. Serv. 38, 39–40. This change, too, should remain in place for private sector employees that work on state cases. Moreover, judges should consider certification or lack thereof when determining whether or not a person may testify as an expert, effectively ensuring certification of anyone who works on evidence in a police case. As it is now, judges are often lenient with

Despite the shortfalls of ASCLD with regard to the SBI Crime Lab, North Carolina was right to require accreditation in the first place. Under a system that utilizes private sector labs, this requirement should remain. Accreditation serves as a first line of defense against sloppy or improper methods.¹⁵² The use of unaccredited labs increases the risk of faulty science making it into the courtroom. West Virginia's lab was not accredited during the period when Fred Zain worked there.¹⁵³ More recently in 2002, the practices of an unaccredited lab in Texas came under fire, resulting in the lab's closure and the reopening of hundreds of cases.¹⁵⁴

Accreditation, however, is only one safeguard and is not fool-proof, as the SBI Crime Lab scandal has demonstrated. "[A]ccreditation does not mean that accredited laboratories do not make mistakes nor does it mean that a laboratory utilizes best practices in every case"¹⁵⁵ Accreditation also may not prevent biased analysts from committing intentional misconduct.¹⁵⁶ Still, accreditation is indispensable. Accreditors set the standard at which a

whom they consider an expert in the courtroom. For example, with regard to blood analysts, the type at issue in North Carolina, courts across the country are generous with the expert label. GIANNELLI & IMWINKELRIED, *supra* note 3, at 944. "[C]ourts have held that a witness can acquire this expertise solely through experience; academic training is unnecessary. The standard of admissibility is relatively lax" *Id.* Moreover, the less scientific background a forensic worker has, the more bias the worker is likely to allow to seep into his or her work, overcoming scientific objectivity. See Andre A. Moenssens, *Novel Scientific Evidence in Criminal Cases: Some Words of Caution*, 84 J. CRIM. L. & CRIMINOLOGY 1, 6-7 (1993). Pro-prosecution bias is greater among technicians—those who have been trained to perform certain tests but are not themselves scientists. *Id.* These technicians are often called on to testify as expert witnesses. *Id.*

152. Either through the accrediting agency or on their own, labs should implement a quality assurance program. CALIFORNIA REPORT, *supra* note 89, at 17 ("The credibility of the forensic laboratory and its scientists rests on the quality of their work product. Forensic scientists must be scientifically knowledgeable, technically skilled, objective and ethical. Laboratory procedures must be scientifically sound and carried out according to good laboratory practices. Written reports and testimony must be scientifically correct yet comprehensible to a lay audience. A strong quality assurance program is an essential foundation—and a necessary 'cost of doing business'—for any forensic laboratory."). The program, as imagined by the writers of the report, would cover staff training and qualifications; administrative policies; quality control checks of equipment; and review of casework, reports, and testimony. *Id.* at 18.

153. *In re Investigation of W. Va. State Police Crime Lab., Serology Div.*, 438 S.E.2d 501, 508 (W. Va. 1993) (directing the lab to seek accreditation within sixty days and finding that the "corruption of our legal system would not have occurred had there been adequate controls and procedures").

154. CALIFORNIA REPORT, *supra* note 89, at 17.

155. NAT'L RESEARCH COUNCIL OF THE NAT'L ACADS., *supra* note 24, at 195.

156. *Id.* at 197 ("Accreditation cannot guarantee high quality—that is, it cannot guard against those who intentionally disobey or ignore requirements."). For a discussion of bias and intentional misconduct, see *supra* Part II.A.

lab should operate and can identify problematic practices early if accreditors are doing their jobs properly.

B. Consistency in the Lab and in the Courts Through Uniform Standards

Instituting regulation in an almost regulation-free industry,¹⁵⁷ however, must go beyond merely requiring accreditation by any of several accrediting bodies, which may vary in the standards and best practices that they promote. Accrediting boards are free to set their own standards, and ASCLD only recently began to examine its practices in relation to international standards.¹⁵⁸ As an example of how individual accrediting board standards might fall short, until 2004 ASCLD had no written guidelines regarding reporting lab results.¹⁵⁹ Some of the problems associated with the SBI Crime Lab's serology unit, such as the practice of withholding negative confirmatory tests for blood from final reports, might have been avoided with the proper guidelines.

Several options exist as to what government body, new or existing, ought to be responsible for creating guidelines in North Carolina. The newly created Forensic Science Advisory Board¹⁶⁰ could fill the role of creating best standards and practices for use by private labs and the accrediting agency used by those labs.¹⁶¹ The Board and a new ombudsman position are already charged with making recommendations of this type to the SBI Crime Lab's director, but the Board's duties and authority could be expanded. New York, for example, employs an independent commission to act as accreditor, setting standards and qualifications.¹⁶² Another option may be a forensic science institution jointly operated by a medical school and a law school.¹⁶³ The congressional committee charged with examining the nation's forensic science issues recommends the

157. Giannelli, *supra* note 13, at 474.

158. SWECKER & WOLF, *supra* note 21, at 28 (noting that the SBI Crime Lab has been "grandfathered" in and can use old guidelines until 2013).

159. *Id.* at 17.

160. Forensic Sciences Act of 2011, § 2, 2011-1 N.C. Adv. Legis. Serv. 38, 38 (LexisNexis).

161. At the very least, the State should actively examine the standards promoted by accrediting bodies in determining which ought to be used.

162. Giannelli, *supra* note 74, at 228-29.

163. Paul J. Neufeld, *The (Near) Irrelevance of Daubert to Criminal Justice and Some Suggestions for Reform*, 95 AM. J. PUB. HEALTH S107, S113 (2005) ("[T]he synergy of law and medicine would enhance the development and implementation of appropriate standards and controls for reporting scientific results in writing and in court.").

creation of a national agency called the National Institute of Forensic Science.¹⁶⁴ Whatever route is taken, the body charged with creating such standards should also investigate and address misconduct and error.¹⁶⁵ Under the current law in North Carolina, the new Board has authority to review lab reports and conclusions only upon the request of the lab director.¹⁶⁶ The Board should also conduct regular audits aimed at uncovering problems in their infancy.

Promulgated standards could directly address the problems identified at the SBI Crime Lab. For example, Greg Taylor's case may have turned out very differently had the SBI Crime Lab operated under strict report writing guidelines that required the disclosure of subsequent negative test results for the presence of blood. The opposite policy, which was in full force at the SBI Crime Lab for years, is unethical and also a likely violation of the Constitution and the rules of evidence.¹⁶⁷

The institution of scientific best practices also may have helped the SBI Crime Lab avoid the issues that led to the recent scandal. In the area of serology analysis, the use of presumptive tests for the presence of blood is common practice. Perhaps the most well-known example of presumptive testing is the use of luminol at crime scenes.¹⁶⁸ With these presumptive tests, "a negative result is almost

164. NAT'L RESEARCH COUNCIL OF THE NAT'L ACADS., *supra* note 24, at 19.

165. JUSTICE PROJECT, *supra* note 76, at 3. In addition, the Justice Project report recommends that such commissions include members "from inside and outside the forensic establishment and other stakeholders in the criminal justice system, including prosecutors and defense attorneys with expertise in forensic evidence." *Id.*

166. Forensic Sciences Act of 2011, § 2, 2011-1 N.C. Adv. Legis. Serv. 38, 39 (LexisNexis).

167. SWECKER & WOLF, *supra* note 21, at 12. For example, the United States Supreme Court requires the government to turn over evidence that is material to the outcome, favorable to the defense, or exculpatory—categories that certainly include test results contradicting the government's case. *Brady v. Maryland*, 373 U.S. 83, 87 (1963); *see also* 1 NORTH CAROLINA DEFENDER MANUAL § 4.6 (2004) (discussing *Brady* material). Moreover, the state's rules of professional conduct require similar action by prosecutors. N.C. REVISED RULES OF PROF'L CONDUCT R. 3.8 (2007) (requiring prosecutors to disclose evidence that "tends to negate the guilt of the accused or mitigates the offense"). None of these rules require the defense to make a motion before the duty to disclose arises despite the requirement for the disclosure of other prosecutorial records. *See* N.C. GEN. STAT. § 15A-903 (2009) (requiring the court to order the prosecution to fulfill their duty and turn over such materials upon the defense's motion), *amended by* Forensic Sciences Act of 2011 § 9, An Act to Strengthen North Carolina's Open-File Discovery Law, Protect Crime Stoppers Informants, Protect Victim Information, Require Law Enforcement and Investigatory Agencies to Make Timely Disclosure of Their Files to Prosecutors, and Avoid Frivolous Claims of Professional Misconduct Against Prosecutors, sec. 1, § 15A-903, 2011-4 N.C. Adv. Legis. Serv. 294 (LexisNexis).

168. GIANNELLI & IMWINKELRIED, *supra* note 3, § 17.04 (noting that luminol is most popular). Despite its tendency to result in false positives, luminol may come to juries with

conclusive evidence that blood is absent.”¹⁶⁹ However, false positives are not uncommon and have been reported with samples from a variety of everyday items.¹⁷⁰ The SBI training manual itself prescribes that presumptive tests “should not be judged as a confirmation of the presence of blood” and that they are only to be used together with confirmatory tests if enough of a blood sample is available.¹⁷¹

The SBI audit summarizes the importance of serology analysis in criminal cases:

[T]he mere presence of human blood on a suspect or an object associated with a suspect can be powerful evidence for the prosecution in a criminal investigation. Conversely, the absence of evidence of such a transfer or the absence of bodily fluid, especially blood, on a suspect can be favorable and even material, to the defense of an accused defendant.¹⁷²

Thus, the presence or absence of blood can determine the outcome of a trial.¹⁷³

While reporting guidelines would address many of the problems associated with the SBI’s serology unit,¹⁷⁴ the number of tests available and the varying reliability of those tests, in serology and other disciplines, warrants standards for the testing itself.¹⁷⁵ In 2003, the SBI Crime Lab discontinued use of the confirmatory test relied on (but not reported) in the *Taylor* case, known as the Takayama test, in favor of DNA testing and other more accurate tests, such as the Rapid Stain Identification test.¹⁷⁶ Regulatory standards should require the most accurate and reliable technology, and regulators should

a gloss of reliability given its extensive appearance on popular television shows like *CSI*. See JOHN M. BUTLER, FUNDAMENTALS OF FORENSIC DNA TYPING 91 (2009).

169. GIANNELLI & IMWINKELRIED, *supra* note 3, § 17.04.

170. *Id.* (noting that presumptive tests may react positively with “samples from apple, cabbage, radish, grass, lettuce, celery, potato, tomato, corn, onion, rust, and bleach”); see also SWECKER & WOLF, *supra* note 21, at 15 (noting that, similar to luminol, another presumptive test, the Kastle-Meyer test, reacts positively to common plants like tomatoes and turnips).

171. SWECKER & WOLF, *supra* note 21, at 34.

172. *Id.* at 3.

173. Again, defense attorneys must have routine access to materials disclosing the outcome of all tests performed by lab analysts so they can utilize the results at trial. See *supra* notes 134–40 and accompanying text.

174. The analysts actually were conducting “subsequent confirmatory tests” but were not always reporting the results. SWECKER & WOLF, *supra* note 21, at 3.

175. See GIANNELLI & IMWINKELRIED, *supra* note 3, § 17.04 (discussing different presumptive and confirmatory tests for blood).

176. SWECKER & WOLF, *supra* note 21, at 27.

regularly review and update the standards to keep pace with scientific advances.

The evolution of quality assurance in DNA analysis can serve as a model to regulators in other forensic science disciplines. In 1989, the FBI formed a group with members hailing from DNA labs nationwide to form guidelines for DNA analysis.¹⁷⁷ Labs now must follow FBI guidelines and quality assurance protocols in order to have access to CODIS, the FBI's DNA database.¹⁷⁸ Similar groups have formed to create guidelines in other forensic areas such as fingerprint and bloodstain pattern analyses.¹⁷⁹ The standards already promulgated by these groups could be adopted at the state level regardless of whether the lab intends to seek access to any federal databases. Again, the state organization should conduct frequent audits like those required by the FBI's quality assurance program.¹⁸⁰

Finally, beyond improving laboratory operations, uniformity in standards and guidelines will aid inside the courtroom as judges struggle to perform their gatekeeper function with respect to expert testimony and evidence.¹⁸¹ The two primary tests for admissibility are the general acceptance test from *Frye v. United States*¹⁸² and the current federal standard outlined in *Daubert v. Merrell Dow Pharmaceuticals*,¹⁸³ codified in Federal Rule of Evidence 702.¹⁸⁴ Both

177. DOJ REPORT, *supra* note 17, at 15.

178. *Id.* at 16.

179. CALIFORNIA REPORT, *supra* note 89, at 22.

180. See DOJ REPORT, *supra* note 17, at 21 (detailing the creation of a DNA audit guide to be followed by auditors of local, state, and federal labs). The FBI, of course, has not been immune to the ills of the forensic science system in the United States, demonstrating again that standards alone will not solve the problem of intentional misconduct. In 2002, the FBI discovered that one of its analysts, Jacqueline Blake, omitted important and required control tests in the DNA testing protocol and falsified lab reports to conceal her actions. *Id.* at i–ii. The creation of an oversight commission, in conjunction with standards and a move toward independent labs, will help to minimize and eliminate the instances of rogue employees. The United States DOJ recommended updating the testing protocols, rewriting them to eliminate vagueness, and enhancing note-taking requirements, among other things, in response to the Blake scandal. *Id.* at 120–26.

181. See Neufeld, *supra* note 163, at S109 (describing the ineffectiveness of the *Daubert* standard in keeping out questionable forensic testimony in criminal cases).

182. 293 F. 1013 (D.C. Cir. 1923), *superseded by rule as stated in* *Daubert v. Merrell Dow Pharm.*, 509 U.S. 579 (1993).

183. 509 U.S. 579 (1993).

184. FED. R. EVID. 702 (requiring for the admission of expert testimony that “(1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case”). The rule was amended to its current state in 2000 in response to *Daubert*. *Id.* advisory committee's note to 2000 amendment.

require the judge to weigh the reliability of expert testimony.¹⁸⁵ Yet, more than two decades after *Daubert*, observers have noted that few criminal defendants challenge scientific testimony and that criminal defendants rarely win their challenges.¹⁸⁶ Moreover, when it comes to important blood evidence, for example, it seems that almost anything will pass muster. As one commentator explains, "The courts liberally admit testimony on the threshold question of whether material is blood. Some courts even declare that no expertise is necessary to identify blood and, hence, that lay opinion is permissible on that subject."¹⁸⁷

While important screening of evidence is not taking place in *Daubert* jurisdictions, the situation is even more dire in North Carolina, where the Supreme Court of North Carolina has adopted a more lax standard. North Carolina courts employ a three-prong test that requires that the expert utilize sufficiently reliable methods; the expert be qualified in the area; and the testimony be relevant.¹⁸⁸ Though this standard on its face is similar to *Daubert*, the Supreme Court of North Carolina has forcefully rejected the view that the state had implicitly adopted the federal standard, holding that North Carolina's "approach is decidedly less mechanistic and rigorous than the 'exacting standards of reliability' demanded by the federal

185. The *Frye* test requires that the technique or scientific principle upon which admissible expert testimony is based "must be sufficiently established to have gained general acceptance in the particular field in which it belongs." 293 F. at 1014.

186.

An analysis of post-*Daubert* decisions demonstrates that whereas civil defendants prevail in their *Daubert* challenges, most of the time criminal defendants almost always lose their challenges to government proffers. But when the prosecutor challenges a criminal defendant's expert evidence, the evidence is almost always kept out of the trial. . . . And even though *Frye* remains the test in more than a dozen states, criminal defendants fared no better under *Frye*.

Neufeld, *supra* note 163, at S109 (footnote omitted). Neufeld faulted both lawyers and judges in his discussion of varying standards of admissibility and the failures that have resulted despite *Daubert*. *Id.* at S110. In describing the difficulties in determining whether or not a person testifying as an expert actually has the credentials and expertise required, one judge noted that there may be another solution to the "lack of scientific knowledge on the bench." Weinstein, *supra* note 126, at 1017. He states that "professional scientific and medical societies must take a more active role in policing members of their professions who testify as experts and must do more to ensure honesty and professionalism among expert witnesses." *Id.* Another suggestion is that judges take into account observer effects—the bias resulting from lab employees seeing themselves as an arm of the prosecution—when making a reliability determination. Risinger et al., *supra* note 80, at 54.

187. GIANNELLI & IMWINKELRIED, *supra* note 3, § 17.04.

188. *State v. Goode*, 341 N.C. 513, 527–29, 461 S.E.2d 631, 639–41 (1995).

approach.”¹⁸⁹ The court in *Howerton v. Arai Helmet, Ltd.*¹⁹⁰ wanted to avoid putting judges “in the onerous and impractical position of passing judgment on the substantive merits of the scientific or technical theories undergirding an expert’s opinion.”¹⁹¹ The court seemed determined in *Howerton* to remove judges from the role of gatekeeper altogether.¹⁹² Furthermore, *Howerton* may have gone so far as to shift to opponents of evidence the heavy burden of demonstrating its unreliability.¹⁹³ This lack of rigorous review may allow the admission of fundamentally unreliable evidence.¹⁹⁴

In those jurisdictions where gatekeeping is still a judicial function, uniform standards and procedures could aid judges in properly determining the reliability of scientific evidence. In North Carolina, absent a reversal of course from *Howerton*, a set of best practices would serve a different purpose—acting as a failsafe and blunting the effect of a lackluster legal standard. If judges do not protect defendants on the back end from improper evidence, then evidence offered by the State must be highly reliable on the front end.¹⁹⁵

189. *Howerton v. Arai Helmet, Ltd.*, 358 N.C. 440, 464, 597 S.E.2d 674, 690 (2004) (quoting *Weisgram v. Marley Co.*, 528 U.S. 440, 455 (2000)).

190. 358 N.C. 440, 597 S.E.2d 674 (2004).

191. *Id.* at 464, 597 S.E.2d at 690.

192. See Kenneth S. Broun, *Scientific Evidence in North Carolina After Howerton—A Presumption of Admissibility?*, N.C. ST. B.J., Spring 2005, at 8, 10 (“The only references to ‘gatekeeping’ in *Howerton* are pejorative.”). The state of affairs regarding the admissibility of scientific evidence in North Carolina post-*Howerton* could be the subject of a comment in its own right. In fact, after the ruling, scholars were not sure what to make of it. *Id.* at 10–11 (“[T]he boundaries of the standard for admissibility are still very much open.”); see MARTIN S. KAUFMAN, ATL. LEGAL FOUND., THE STATUS OF *DAUBERT* IN STATE COURTS 3, 35–36 (2006) (categorizing North Carolina as having neither rejected nor accepted *Daubert*, despite the repudiation in *Howerton*).

193. Broun, *supra* note 192, at 12. (“Judges are not to weigh the scientific merit of the evidence on each side. The burden is not only on the opponent to negate the reliability of the testimony. Arguably, based upon the Court’s language in *Howerton*, the burden on the opponent of the evidence is a heavy one—to clearly establish the lack of scientific merit in the evidence.”).

194. *Id.* at 12. Professor Broun points to *State v. Bullard*, 312 N.C. 129, 322 S.E.2d 370 (1984), a well-known North Carolina example of junk science being admitted where it might have been discovered under a *Daubert* review. See Broun, *supra* note 192, at 12. In that case, Dr. Louise Robbins testified that a bloody footprint belonged to the defendant, and the court admitted the testimony after a review under the factors later announced in *Goode*. *Id.* Her techniques, however, had been contradicted by defense experts and were later thoroughly debunked. *Bullard*, 312 N.C. at 154, 322 S.E.2d at 384–85; Broun, *supra* note 192, at 12.

195. See Neufeld, *supra* note 163, at S109, S111 (discussing this idea in terms of jurisdictions where defendants, despite *Daubert* or *Frye*, rarely win challenges to the admissibility of scientific evidence). “The judicial process has failed to provide obligatory controls to ensure the fairness of the proceeding. If the courts cannot be relied on for this

While tightening the legal standard of admissibility in North Carolina might be wise, ultimately, broader, non-legal reforms provide the best opportunity to address the problems inherent in the current system. Legal reforms, for example, would not solve the problem of the indigent defendant who may not have an attorney competent to challenge admissibility.¹⁹⁶ An approach that prioritizes reform of the labs themselves and also addresses problems inherent in the law is, of course, ideal.¹⁹⁷

IV. ADDRESSING SOME CONCERNS

While independence and use of private sector labs would solve many of the problems associated with the SBI Crime Lab, these reforms are not without potential pitfalls. This Part addresses the concerns of cost, profit-motive, legal, and constitutional issues, as well as law enforcement personnel's fears that a private lab would inhibit their ability to conduct effective investigations.

A. Cost

Local law enforcement agencies that utilize private labs to fulfill some of their needs often face increased costs, sometimes paying out-of-pocket for lab services that would otherwise be free to them if provided by a state lab. These increased costs, however, would not accompany a statewide system that regularly uses private labs for all of its testing needs. The funds now devoted to the state lab would be diverted to local agencies for use in contracting out for those services. Furthermore, by using private laboratories, the State would save

protection, other remedies must be found further 'upstream' so that the disreputable evidence is never proffered." *Id.* at S111.

196. Bernstein, *supra* note 99, at 181 ("While stricter standards for admitting scientific evidence benefit only those who can afford to mount an effective legal challenge to questionable scientific evidence, broader reforms benefit even the most impecunious defendants."). The National Research Council's report also advocates for broader reform, finding that the lack of scientific expertise on the bench, the lack of time and resources, and the deferential nature of appellate review means that "[t]he adversarial process . . . is not suited to the task of finding 'scientific truth.'" NAT'L RESEARCH COUNCIL OF THE NAT'L ACADS., *supra* note 24, at 11–12. The report argues that "[j]udicial review, by itself, will not cure the infirmities of the forensic science community." *Id.* at 12. Examples of both approaches to reform exist in other countries. For example, Canada and Australia have sought to reduce the admission of junk science by revamping their evidentiary rules, while England has tackled its problems through non-law reforms such as restructuring its lab. Bernstein, *supra* note 99, at 181.

197. Bernstein, *supra* note 99, at 181 ("Of course, there is no reason a jurisdiction could not have what may amount to the best of both worlds — English-style broad reform of the forensic science system *and* stricter rules for the admissibility of scientific evidence.").

money through increased competition for the State as a client and through economies of scale.¹⁹⁸ The current structure, where a lab's size is tied to the size of the jurisdiction it serves, prevents effective economies of scale as labs are less flexible to respond to the needs of the market at large.¹⁹⁹ With healthy competition in the private sector, then, labs will compete for state contracts on cost, as well as quality.²⁰⁰ Moreover, contracting out government services has historically yielded cost-savings: "[P]rivate profit-seeking entrepreneurs have strong incentives to monitor costs and avoid unnecessarily expensive means of production, perhaps in order to increase profits, but more importantly to attract and keep customers in the face of competitive alternatives."²⁰¹ Though data is lacking in the forensic science industry, studies have repeatedly shown that private ownership of firms in general can create cost-savings over state ownership.²⁰²

A network of private labs also would reduce the cost of national regulation, should Congress go that route:

Forensic labs are currently under the jurisdiction of local governments, which may adopt policies different from those the national government might choose. Privatization would open the way for national regulations. Privatization would reduce the cost of national regulation and, therefore, of intervention at the

198. See Koppl, *supra* note 4, at 272. Koppl also argues that a competitive private system would serve as more than a cost-cutting measure, creating "the advantage of turning the entrepreneurial discovery process loose in the forensic laboratories of the criminal justice system." *Id.*; see also BRUCE L. BENSON, TO SERVE AND PROTECT: PRIVATIZATION AND COMMUNITY IN CRIMINAL JUSTICE 35-40 (1998) (describing how privatization in other areas of criminal justice may enhance the quality of services). This Comment does not, however, argue that other areas of criminal justice, such as prisons or police, ought to be privatized as those areas present their own unique issues.

199. Koppl, *supra* note 4, at 272; see also BENSON, *supra* note 198, at 33-34.

200. Koppl, *supra* note 4, at 273. Koppl quoted Benson as saying that a "firm with a reputation for providing lower quality than expected may not be in business for very long, if competitive alternatives are available." *Id.* (quoting BENSON, *supra* note 198, at 35). The concern that the State will select a private lab based on the test results it produces is addressed in Part III, *supra*. The concern that private labs' motive to profit from this system will lead to manipulated test results to please the State is addressed in Part IV.B, *infra*.

201. BENSON, *supra* note 198, at 30. Benson also notes that private firms can save money on labor and through the flexibility they have that governments cannot match. *Id.* at 30-31.

202. Megginson & Netter, *supra* note 75, at 332-37 (summarizing empirical research comparing efficiencies of private firms versus public firms around the world). One study in particular of international airlines found that "private ownership leads to higher rates of productivity growth and declining costs in the long run . . ." *Id.* at 334. In particular, one study found that the differences do not depend on the degree of competition in the marketplace. *Id.*

national level. Interventions that impose national standards and protocols would be easier under privatization.²⁰³

Additionally, the costs of sticking to the status quo are substantial. With a scandal, the State ends up paying in more than just reputation. In West Virginia, following the revelations of misconduct by its serologist, Zain, the state's highest court directed that whenever an individual sought habeas relief on an issue related to Zain, the court would identify an independent laboratory to conduct DNA testing at the government's expense.²⁰⁴ Costs also add up by way of overturned convictions, payments of restitution, and new trials, not to mention the general cost of imprisoning people who should not be in prison.

B. Motive to Profit Replacing the Motive to Convict

The profit-seeking nature of private firms, however, presents another concern: the money brought in by having state or local governments as a client may simply replace the desire to convict as a motivational problem, with the defendants losing either way.²⁰⁵ With the proper safeguards in place, however, such pitfalls may be avoided. Any shift to the private sector must be accompanied by regulations that specify standards of practice, guard against corruption and bad actors,²⁰⁶ and promote quality control.²⁰⁷ This means the creation of an oversight mechanism, mandatory accreditation, and regular audits.²⁰⁸ North Carolina's new Forensic Science Advisory Board could provide this oversight if its powers are expanded beyond merely recommending action to the lab's director.²⁰⁹ The General Assembly could also take a cue from Senator Patrick Leahy's bill pending in the

203. Koppl, *supra* note 4, at 272.

204. *In re Investigation of W. Va. State Police Crime Lab., Serology Div.*, 438 S.E.2d 501, 507 (W. Va. 1993).

205. Koppl, *supra* note 4, at 273.

206. Of course, cheating and corruption are possible regardless of the system in place. State oversight will work if the State takes its oversight role seriously. At some point, however, the public has to rely on the fact that the government will enforce its own laws and regulations.

207. Koppl, *supra* note 4, at 272–73; *see also* BENSON, *supra* note 198, at 44–46 (discussing the effect of corruption in a private system).

208. Koppl, *supra* note 4, at 273 (“Poorly designed ‘privatization’ may replace a government bureaucracy with a profit-seeking monopoly. This type of privatization should be avoided If, however, privatization of police forensics is combined with rivalrous redundancy [and] statistical review . . . , then it has considerable potential to raise standards and lower costs.”).

209. Forensic Sciences Act of 2011, § 2, 2011-1 N.C. Adv. Legis. Serv. 38, 39 (LexisNexis).

United States Senate and include lawyers on the Board to provide a legal perspective.²¹⁰ The ombudsman created by the new North Carolina law also could play an important role as a check on the government in its regulation of private labs.²¹¹ Under a system of private labs and government regulation, an ombudsman will be essential to ensuring that the regulatory body charged with oversight takes the actions necessary to accomplish its goals and responds to issues as they arise.²¹²

Ultimately the question may be whether a motive to profit is worse than a motive to convict. This Comment argues that the latter is, in fact, worse. Those who will commit scientific fraud in order to increase profits will have far more hoops to jump through to justify their behavior as moral, let alone legal. This is corruption, and with corruption, governments can only institute safeguards to try to prevent and catch bad actors. When prosecutorial bias takes root, however, this motivation leads those affected to believe that what they are doing is right—that they are serving the cause of justice when in fact they are obstructing it. And this bias has been found in the public forensic science system time and time again. This *systemic* problem is far more dangerous because it is far less obvious to outsiders that something is wrong. For corrupt lab officials actively breaking the law without regard to guilt, innocence, or legal ramifications in order to line their own pockets, criminal punishment is the best response.

210. Criminal Justice and Forensic Science Reform Act of 2011, S. 132, 112th Cong. § 102(b)(3)–(4) (2011).

211. Cf. Brett McDonnell & Daniel Schwarcz, *Regulatory Contrarians*, 89 N.C. L. REV. 1629, 1654–56 (2011) (noting that ombudsman offices can take on the role of contrarians with respect to financial regulation, serving as a check on agencies and “counteracting regulatory inaction”). The ombudsman position was created to “ensure all processes, procedures, practices, and protocols at the Laboratory are consistent with State and federal law, best forensic law practices, and in the best interests of justice in this State.” Forensic Sciences Act of 2011 § 6(a). The ombudsman’s duties include acting as a mediator between the SBI Crime Lab and defense attorneys, prosecutors, law enforcement officers, and the public. *Id.* The ombudsman will “make recommendations on a regular basis to the Director of the State Crime Laboratory, Director of the SBI, and Attorney General of North Carolina” to ensure that the SBI Crime Lab’s practices and procedures comply with state and federal law and the best forensic practices. *Id.* The ombudsman’s recommendations to the Attorney General and SBI officials are to incorporate the “meritorious systemic complaints” his office receives. *Id.*

212. Cf. McDonnell & Schwarcz, *supra* note 211, at 1655–56 (describing the duties of the ombudsman to the Internal Revenue Service, including proposing legislative changes and reporting the agency’s shortcomings to Congress). Similarly, the ombudsman to the SBI Crime Lab, the Forensic Science Advisory Board, or whatever body assumes oversight of private labs can actively identify potential problems and report to the state legislature when improvements can be made.

C. Constitutional and Legal Concerns

Other concerns with a private system, including fears that private firms would raise Confrontation Clause and chain of custody issues, could also be addressed through a set of standards and practices.²¹³ The United States Supreme Court declared in 2009 in *Melendez-Diaz v. Massachusetts*²¹⁴ that scientific analysts must be available to testify to their work.²¹⁵ The Court rejected the argument that analysts should be exempt (and, thus, their reports allowed to speak for themselves) because their testimony consists of “neutral, scientific testing.”²¹⁶ The Court held that the Confrontation Clause was one necessary way to challenge scientific evidence and that it plays a crucial role in “weed[ing] out not only the fraudulent analyst, but the incompetent one as well. Serious deficiencies have been found in the forensic evidence used in criminal trials.”²¹⁷ North Carolina, too, recognized the important role of confrontation when it expressly adopted the *Melendez-Diaz* holding in *State v. Locklear*²¹⁸ and later cases.²¹⁹ While the Confrontation Clause is an important constitutional safeguard, any concern that private labs will be unable to comply with its requirements is unfounded. Compliance would be a condition of the contract. If an out-of-state lab would be unable to guarantee its analysts’ availability to testify in a North Carolina case, then the out-of-state lab would be ineligible for state contracts. The fact that private labs already perform work for criminal investigations also belies any claim that they cannot adhere to appropriate legal standards.²²⁰

213. For information on the Confrontation Clause and chain of custody in general, see GIANNELLI & IMWINKELRIED, *supra* note 3, §§ 6.04, 7.01–7.05.

214. 129 S. Ct. 2527 (2009).

215. *Id.* at 2542 (holding that the admission of certificates, which found the evidence in question to be cocaine, signed by state analysts violated the defendant’s Sixth Amendment right to confront witnesses against him).

216. *Id.* at 2536.

217. *Id.* at 2537. Of course, successful confrontation of forensic evidence requires a competent defense attorney as well.

218. 363 N.C. 438, 681 S.E.2d 293 (2009).

219. *Id.* at 452, 681 S.E.2d at 304–05 (holding that autopsy reports are testimonial and thus subject to the Confrontation Clause per *Melendez-Diaz*); *see also* *State v. Ward*, 364 N.C. 133, 147, 694 S.E.2d 738, 747 (2010) (“The practical effect of the *Melendez-Diaz* ruling is that through cross-examination more light is being shed on the procedures expert witnesses use to support their testimony.”).

220. *See supra* notes 89–95 and accompanying text. The burden *Melendez-Diaz* creates is not a small one by any means, and states are trying to figure out the best way to deal with the requirements. The ombudsman to the SBI Crime Lab has recommended that the lab review the way it assigns cases to analysts and its procedures for notifying district

D. Hampering Law Enforcement Personnel's Ability to Investigate Crimes

Finally, some worry that laboratory independence will inhibit law enforcement's ability to work with scientists to further their investigative goals and direct the laboratory to work on the most important cases.²²¹ This argument, however, cuts in favor of independence—scientists should not be working in furtherance of the police's investigative goals but in pursuit of the truth, whatever it may be. Moreover, removing the lab from State oversight would not prevent open lines of communication between law enforcement and the lab. If the client wants certain evidence analyzed before others or simply wants to call and check on results, there is no reason a private laboratory would not or could not comply.

CONCLUSION

A lot can change in seventeen years, the amount of time Greg Taylor spent in prison for a crime he did not commit. When Taylor left prison, he had never talked on a cell phone, had missed watching his daughter grow up and the birth of his grandson, and had learned to suppress what most take for granted—the urge to plan for his future.²²² A year after his release, he was still learning how to live as a free man, telling a reporter, “You can’t just undo 17 years in one year[.] I had to learn [in prison] how not to go anywhere, I had to learn how not to have any aspiration or hopes”²²³ The importance of freedom is at the very heart of the American criminal justice system. “Innocent until proven guilty” is a maxim encompassing an understanding that before we as a society take away someone’s liberty, we have to be sure beyond a reasonable doubt of his guilt. Addressing the problems that led to Taylor’s wrongful imprisonment is another step toward that ideal.

The changes must be meaningful. This Comment proposes a fundamental shift in the way forensic criminal analysis is conducted in North Carolina. Private laboratories should assume the duties of the SBI’s Crime Lab through contracts with State and local authorities. The State however, should remain involved to ensure that these labs

attorneys of lab analysts’ scheduled leave time. OMBUDSMAN’S REPORT, *supra* note 34, at 25–27. These same issues will need to be worked out contractually with a private lab.

221. See Giannelli, *supra* note 74, at 228 n.453.

222. *Greg Taylor One Year Later*, ABC11.COM (Feb. 17, 2011), <http://abclocal.go.com/wtvd/story?section=news/local&id=7965366>.

223. *Id.*

are meeting its needs, employing the best scientific practices, and satisfying standards designed to arrive at the truth and not convictions or profit. A strong regulatory component to a private system combines the best of both worlds—eliminating conditions that lead to strong biases toward the State among scientists and counteracting the prospect of misconduct or corruption occurring anyway. Moreover, by monitoring accreditation and setting high standards for the scientific evidence that enters the state's courts, a regulatory body can ensure that a weak standard of admissibility is not the only thing standing in the way of junk science. Finally, while this Comment proposes several major changes, these suggestions are by no means the only reforms that would prove helpful.²²⁴

The North Carolina General Assembly has shown itself capable of identifying systemic failures. The renaming of the lab is an implicit acknowledgment that there is something wrong with law enforcement running a scientific institution. Yet, the Forensic Sciences Act of 2011 does nothing to alter that structure. Now, legislators must show themselves capable of taking serious action to tackle these deficiencies before more innocent men and women lose decades of their lives to the status quo. North Carolina should use this scandal to position itself as a leader in forensic science reform, becoming a model for other states facing similar problems and rebuilding its reputation along the way.

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224. For example, another proposal deserving consideration is to remove the lab from law enforcement control and place it under the State Medical Examiner's Office. Giannelli, *supra* note 13, 470–78. *But see* Neufeld, *supra* note 163, at S113 (noting that medical examiners, too, often view themselves as arms of the prosecution).